

## ADDENDUM NO. 3

To: All Plan Holders of Record and Interested Parties  
Project: Clinton County Administration Building - Addition & Alterations  
Project No.: 22072  
Issue Date: March 5<sup>th</sup>, 2024  
Bids Due: 2:00 PM, March 13, 2024

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The following additions, revisions, corrections, and clarifications contained herein shall become part of the Construction Contract Documents for the Project and shall be included in the Scope of Work and Bid Proposals to be submitted. References made below to Specifications and Construction Drawings shall be used as a general guide only. Bidders shall determine for themselves the full scope of work affected by the Addendum items.

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The following Addendum is part of the Construction Contract Documents dated February 13, 2024.

This Addendum consists of the following:

- Addendum No. 3-- 3 Pages
- Sheet G1.1
- Sheets A5.4, A5.5, A6.0, and A6.4 -- 4 Pages
- Sheet S1.2
- Addendum No. 3 items by Modus Engineering -- 15 Pages

## CHANGES TO CONTRACT DOCUMENTS

### CHANGES TO TECHNICAL SPECIFICATIONS:

Specification Section – 099123 – INTERIOR PAINTING

1. Revise section 3.5 INTERIOR PAINTING SCHEDULE to read as follows:

#### 3.5 INTERIOR PAINTING SCHEDULE

##### A. Steel Substrates: Semi-Gloss Finish

##### 1. Low-Odor/VOC Latex System:

- a. 1st Coat: S-W Pro Industrial Pro-Cryl Primer, B66-1300 Series (1.9-3.9 mils dry)
- b. 2nd Coat: S-W Pro Industrial Waterbased Alkyd Urethane Semi-Gloss, B53 Series. (4 mils wet – 1.6 mils dry)
- c. 3rd Coat: S-W Pro Industrial Waterbased Alkyd Urethane Semi-Gloss, B53 Series. (4 mils wet – 1.6 mils dry)

##### B. Gypsum Board & Concrete Block Substrates: Eg-Shel/Satin Finish

##### 1. Low-Odor/VOC Latex System:

- a. 1st Coat: S-W ProMar 200 Zero VOC Interior Latex Primer, B28 Series. (4 mils wet – 1.0 mils dry)
- b. or 1st Coat: S-W Loxon Concrete and Masonry Primer LX02W0050 (2.1-3.2 mils dry)
- c. 2nd Coat: S-W ProMar 200 Zero VOC Interior Latex Eg-Shel, B20 Series. (4 mils wet – 1.1 mils dry)
- d. 3rd Coat: S-W ProMar 200 Zero VOC Interior Latex Eg-Shel, B20 Series. (4 mils wet – 1.1 mils dry)

See attached items per Modus Engineering.

### DUBUQUE OFFICE

137 Main Street, Ste. 100  
Dubuque, Iowa 52001

[origindesign.com](http://origindesign.com)

800 556-4491

CHANGES TO DRAWINGS:

Sheet G1.1:

1. ENERGY CODE: Section UNHEATED SLABS:
  - a. Add instructions to read "SEE WALL SECTIONS AND DETAILS FOR INSTALLING UNDERSLAB INSULATION. THE TYPICAL CONFIGURATION WILL BE R-10 MIN RIGID INSULATION EXTENDING VERTICALLY FROM 1" BELOW T/ SLAB TO B/SLAB THEN 2'-0" HORIZONTALLY INWARD FROM FOUNDATION WALL. COVER THE VERTICAL INSULATION LAYER AT THE BUILDING'S INTERIOR WITH 1" NON-SHRINK GROUT ACTING AS A THERMAL BARRIER FOR THE FOAM PLASTIC RIGID INSULATION."
2. C1 -CODE FIRST FLOOR:
  - a. Clarify the location of underslab perimeter insulation. See re-issued sheet G1.1.

Sheet A5.4:

1. Wall Section #28 UPPER VESTIBULE TO LOWER VESTIBULE:
  - a. Revise the location of underslab insulation and grout covering. See re-issued sheet A5.4.

Sheet A5.5:

1. Wall Section #26 ENTRY WALL SECTION:
  - a. Revise the location of underslab insulation. See re-issued sheet A5.5.
2. Wall Section #28 ENTRY WALL AT COLUMN COVER:
  - a. Revise the location of underslab insulation. See re-issued sheet A5.5.
3. Wall Section #30 LOWER VESTIBULE CANOPY:
  - a. Revise the location of underslab insulation. See re-issued sheet A5.5.

Sheet A6.0:

1. Detail #7 TYP THRESHOLD AT AUTOMATIC SLIDING DOOR:
  - a. Revise the location of underslab insulation, blocking, and the underslab vapor barrier termination. See re-issued sheet A6.0.

Sheet A6.4:

1. Detail #26 BASE OF INT MASONRY COLUMN COVERS:
  - a. Revise the location of underslab insulation, grout covering, and the underslab vapor barrier termination. See re-issued sheet A6.4.

Sheet S1.2:

1. VESTIBULE FOUNDATION PLAN:
  - a. Add detail 6/S1.2 to plan. See re-issued sheet S1.2.
  - b. Revise clouded pier designations. See re-issued sheet S1.2.
  - c. Revise Concrete Pier Schedule to clarify that pier sizes include wall dimensions, add pier sizes, and revise reinforcing. See re-issued sheet S1.2.
  - d. Revise Foundation Plan Note #4 to add reference to insulation that will be around the perimeter of the slab. See re-issued sheet S1.2.
2. Detail #3 TYPICAL 4'-0" WALL
  - a. Revise the location of underslab insulation. See re-issued sheet S1.2.
3. Detail #6 TYPICAL EXTERIOR PIER
  - a. Revise the location of underslab insulation. See re-issued sheet S1.2.
  - b. Revise top of pier elevation and location of adjacent wall in detail. See re-issued sheet S1.2.
  - c. Revise column isolation joint requirements. See re-issued sheet S1.2.
4. Detail #16 TYPICAL STOOP SECTION.
  - a. Revise the location of underslab insulation and bond break between the two slabs. See re-issued sheet S1.2.

See attached items per Modus Engineering.

VENDOR APPROVALS:

Specification Section – 074213.23 – METAL COMPOSITE MATERIAL WALL PANELS

1. Approved: FR Metal Composite Material by Alfrex LLC, Buford, GA

See attached items per Modus Engineering.

ATTACHMENTS:

- Sheet G1.1
- Sheets A5.4, A5.5, A6.0, and A6.4
- Sheet S1.2
- Addendum No. 3 items by Modus Engineering

*It is required to acknowledge this addendum on the Bid Proposal Form.*

	<p>I hereby certify that this portion of this technical submission described below was prepared by me or under my direct supervision and responsible charge. I am a duly licensed Professional Architect under the laws of the State of Iowa. FOR Origin Design Co.</p> <p style="text-align: right;"><i>Michael McNeil</i></p>
	3/5/2024
	<p>Michael McNeil</p> <p style="text-align: right;">Date</p>
	<p>6/30/2025</p> <p style="text-align: right;">3/5/2024</p> <p>Registration Expires</p> <p style="text-align: right;">Date Issued</p> <p>Pages or sheets covered by this seal: Addendum #2</p>

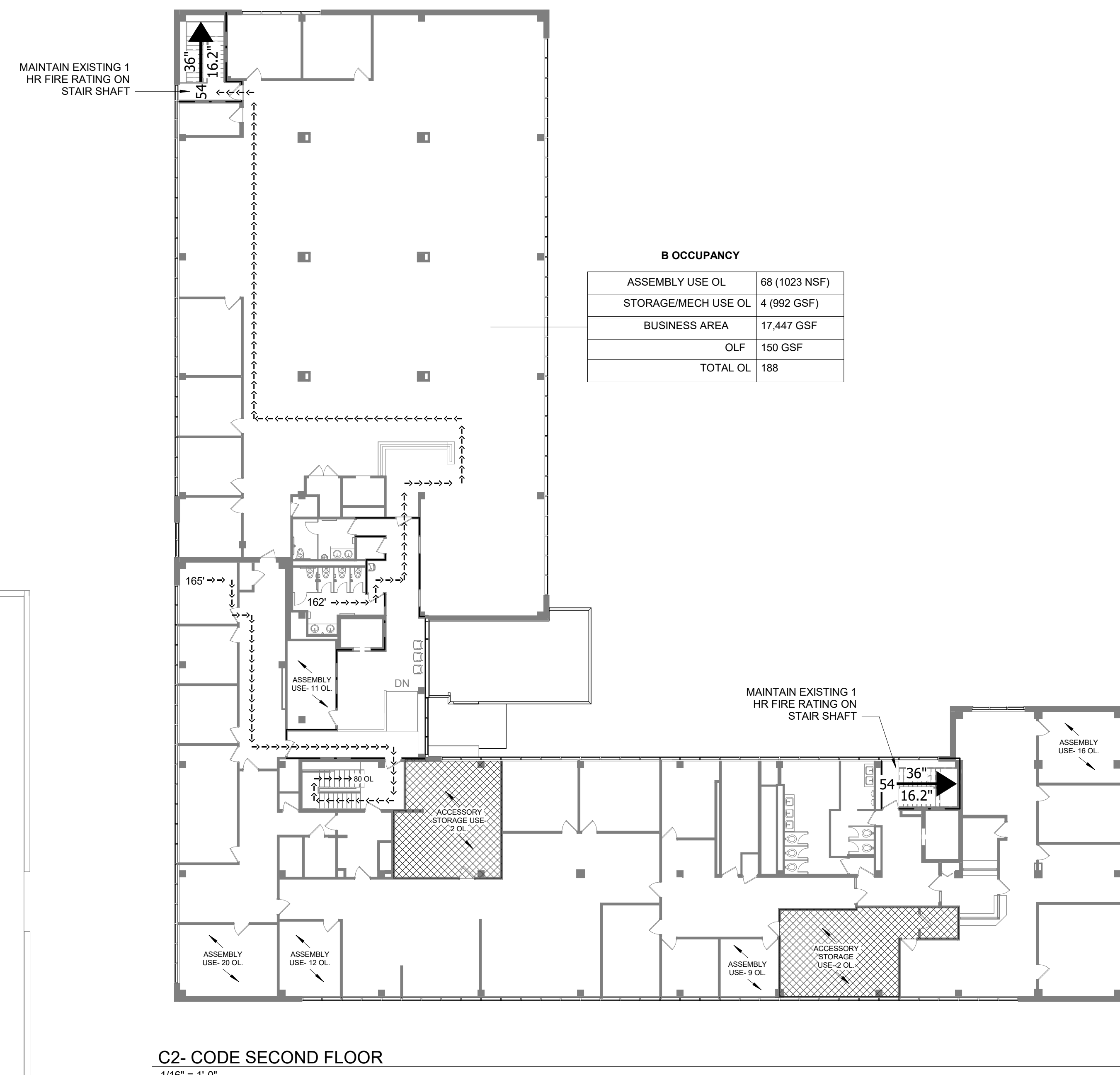
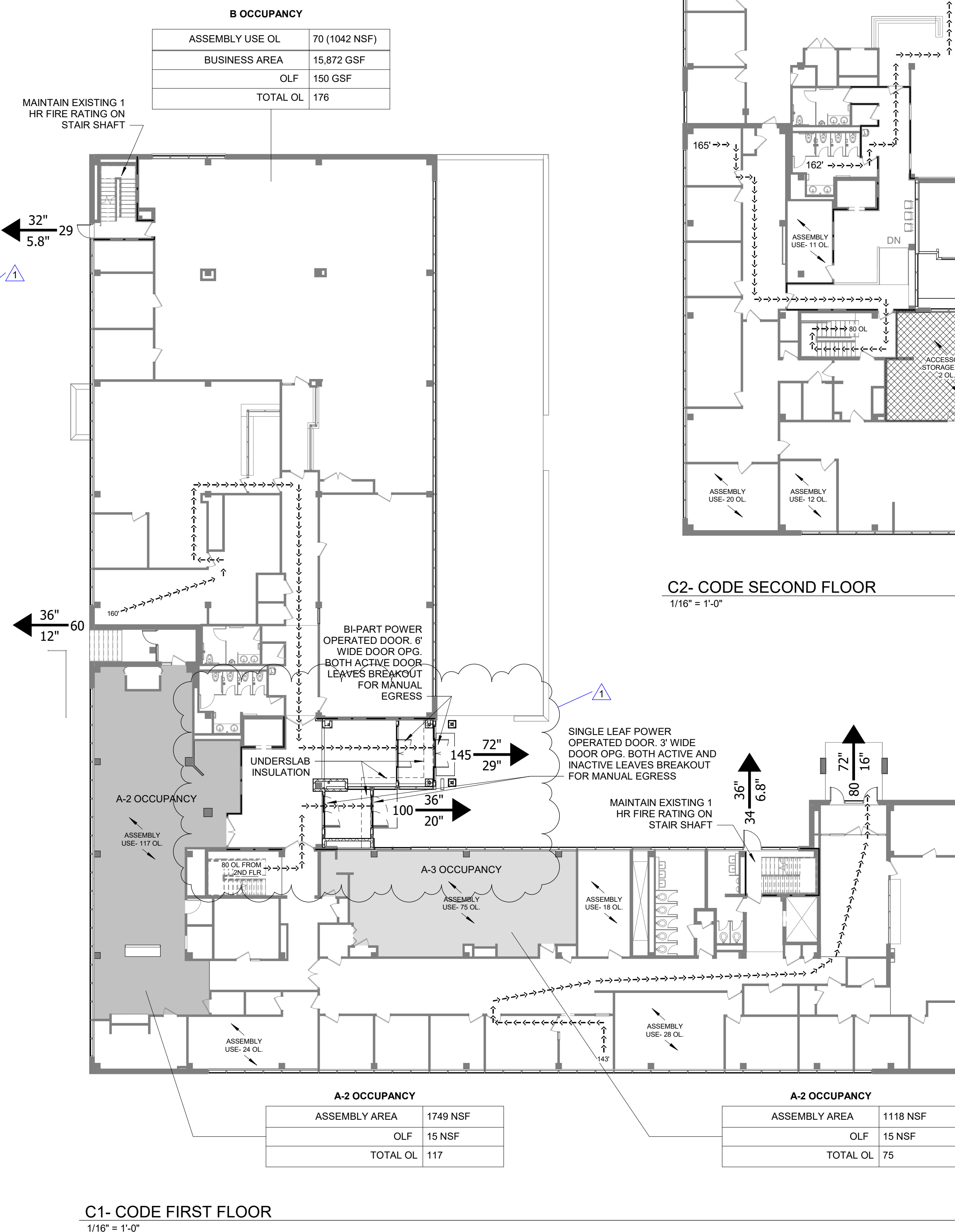
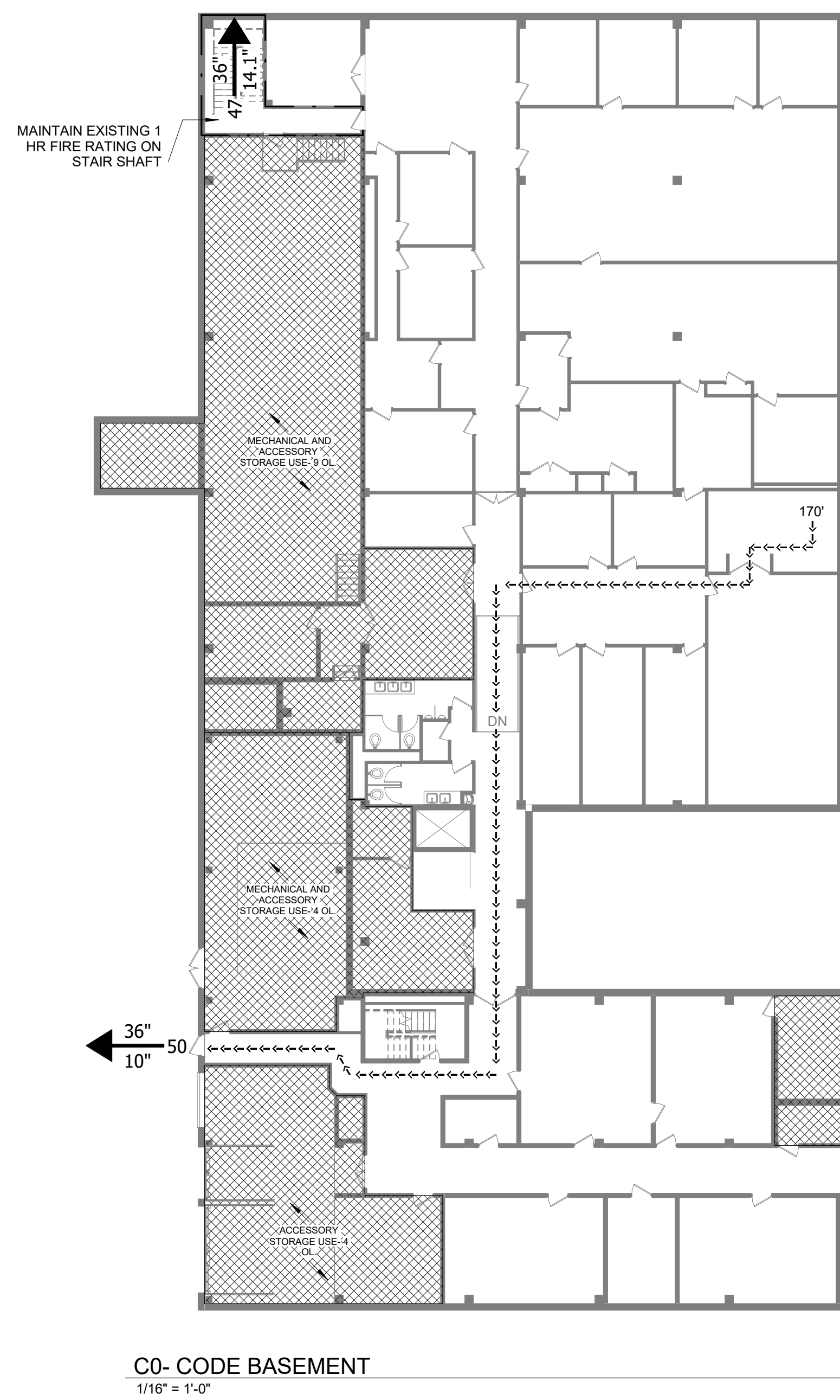
	<p>I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa. FOR Origin Design Co.</p> <p style="text-align: right;"><i>Kevin R. Panczyk</i></p>
	3/5/2024
	<p>Kevin R. Panczyk, P.E.</p> <p style="text-align: right;">Date</p> <p>License Number 24714</p> <p>My license renewal date is December 31, 2025</p> <p>Pages or sheets covered by this seal: Addendum 3 - Modus Items Attachment</p>

END OF ADDENDUM NO. 3



APPLICABLE CODES							
2018	INTERNATIONAL BUILDING CODE						
2018	INTERNATIONAL EXISTING BUILDING CODE						
2018	INTERNATIONAL FIRE CODE						
2018	INTERNATIONAL MECHANICAL CODE						
2018	UNIFORM PLUMBING CODE						
2018	INTERNATIONAL ENERGY CONSERVATION CODE						
2020	NATIONAL ELECTRICAL CODE						
2010	ADA STANDARDS FOR ACCESSIBLE DESIGN						
PROJECT SUMMARY							
BUILDING CONSTRUCTION SUMMARY: FACADE REPAIRS AND A VESTIBULE ADDITION TO AN EXISTING CONCRETE AND STEEL FRAMED BUILDING							
BUILDING USE: GOVERNMENT OFFICES							
BUILDING CONSTRUCTION TYPE: III-B							
BUILDING IS NOT FIRE SPRINKLED.							
CHAPTER 3: OCCUPANCY CLASSIFICATION							
GROUP	SECTION	DESCRIPTION					
B	304.1	OFFICES					
A-2	303.3	CAFETERIA					
A-3	303.4	LARGE MEETING ROOM					
NOTES / EXCEPTIONS:							
THERE WILL BE NO CHANGE TO THE LEGAL OCCUPANCY OF THIS BUILDING FROM WHAT EXISTED ON THE DATE THE EXISTING BUILDING CODE WAS ADOPTED BY THE CITY OF CLINTON, IOWA.							
CHAPTER 5: GENERAL BUILDING LIMITATIONS							
ALLOWABLE HEIGHTS, STORIES & AREAS		INCREASES					
SECTION	TABLE 504.3, 504.4, 506.2	506.3 FRONTAGE INCREASE	0.65				
GROUP	B	506.2.3 ALLOWABLE AREA INCREASE					
CONSTRUCTION TYPE	III-B	$A_n = [A + (NS \times I)] \times S_n$					
ALLOWABLE AREA (GROSS)	62,700 SF	$\leq [19,000 + (19,000 \times 0.65)] \times 2 = 62,700$ SF					
NUMBER OF STORIES	3 (55'-0")						
PROPOSED BUILDING LIMITATIONS							
GROUP	B						
CONSTRUCTION TYPE	III-B						
PROPOSED AREA (GROSS)	43,350 SF						
PROPOSED STORIES	2 (3 ALLOWED) + 1 BASEMENT						
PROPOSED HEIGHT	27'-0" (55'-0" ALLOWED)						
SECTION 508: REQUIRED SEPARATION OF OCCUPANCIES							
508.2.4 NO SEPARATION REQUIRED							
NOTES / EXCEPTIONS:							
A-2 AND A-3 OCCUPANCIES ARE ACCESSORY TO B OCCUPANCY AREAS							
CHAPTER 6: CONSTRUCTION TYPES/REQUIREMENTS							
TABLE 601: FIRE RESISTIVE RATING REQUIREMENTS FOR BUILDING ELEMENTS							
GROUP	CONSTRUCTION TYPE	BUILDING ELEMENT	RATING (HOURS)				
B	III-B	STRUCTURAL FRAME	0				
		BEARING WALLS - EXTERIOR	2				
		BEARING WALLS - INTERIOR	0				
		NONBEARING WALLS - EXTERIOR	0				
		NONBEARING WALLS - INTERIOR	0				
		FLOOR CONSTRUCTION	0				
		ROOF CONSTRUCTION	0				
TABLE 602: FIRE RESISTIVE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE							
GROUP	CONSTRUCTION TYPE	FIRE SEPARATION DISTANCE	RATING (HOURS)				
B	III-B	$X < 5'$	1				
		$5' < X < 10'$	1				
		$10' < X < 30'$	1				
		$X \geq 30'$	0				
NOTES / EXCEPTIONS:							
CHAPTER 7: FIRE RATED CONSTRUCTION							
GROUP	CONSTRUCTION TYPE	IBC SECTION AND DESCRIPTION	RATING (HOURS)				
B	III-B	705 EXTERIOR WALLS	NA				
		706 FIRE WALLS	NA				
		707 FIRE BARRIERS (707.5 CONTINUITY)	NA				
		708 FIRE PARTITIONS (CORRIDORS / DWELLING UNIT SEPARATION)	NA				
		713 SHAFT ENCLOSURES (<=4 STORY - 1 HOUR)	1-HOUR				
NOTES / EXCEPTIONS:							
CHAPTER 9: FIRE PROTECTION SYSTEMS							
GROUP	CONSTRUCTION TYPE	SYSTEM REQUIRED / USED					
B	III-B	NONE					
NOTES / EXCEPTIONS: THE EXISTING BUILDING IS NOT FIRE SPRINKLED AND IS NOT REQUIRED TO BE SPRINKLED							
CHAPTER 10: MEANS OF EGRESS / OCCUPANT LOADS							
SEE CODE PLANS.							
SECTION 1005.3: EXIT WIDTH REQUIREMENTS							
SEE CODE PLANS.							
NOTES / EXCEPTIONS:							
1006.2.1 COMMON PATH OF EGRESS TRAVEL = 100' (OCC. LOAD $\leq$ 30) 75' (OCC. LOAD > 30)							
1006.3.2 NUMBER OF EXITS PER STORY = 2 (1-500 OCCUPANTS)							
1010.1.4.2 POWER OPERATED DOORS - ALL POWER OPERATED DOORS SHALL BE EQUIPPED WITH COMPLYING MANUAL OPERATIONS TO MAINTAIN EGRESS IN THE EVENT OF POWER FAILURE.							
1017.2 EXIT ACCESSIBLE TRAVEL DISTANCE = 200' (NON-SPRINKLED)							
1020.1 CORRIDOR FIRE RESISTANCE RATING = 1 HOUR (OCC. LOAD > 30)							
1020.4 DEAD END CORRIDORS = 20' (NON-SPRINKLED)							
CHAPTER 29: PLUMBING FIXTURES REQUIRED PER FLOOR							
TABLE 2902.1							
OCCUPANT GROUP	OCCUPANT LOAD	W.C. MEN	W.C. WOMEN	W.C. UNISEX	LAVS MEN	LAVS WOMEN	DRINKING SERVICE FOUNTAIN/ SINK
B	492	5.92	5.92	--	4.08	4.08	--
A-2	117	0.78	0.78	--	0.29	0.29	--
A-3	75	0.3	0.57	--	0.19	0.19	--
TOTAL REQUIRED:	7	7.27	--	4.56	4.56	--	5.3
TOTAL PROVIDED:	16	18	1	11	12	1	6

IEBC CHAPTER 3: PROVISIONS FOR ALL COMPLIANCE METHODS		
THIS PROJECT IS CONTAINS REPAIRS, ALTERATIONS, AND AN ADDITION. IT INTENDS TO COMPLY WITH IEBC SECTION 301.3.2 - WORK AREA COMPLIANCE METHOD		
THIS PROJECT CONTAINS ALTERATIONS TO AN AREA OF PRIMARY FUNCTION AS DEFINED IN THE IEBC. THE PRIMARY FUNCTION IN THIS SPACE ARE GOVERNMENT OFFICES, COUNTY SERVICES, AND MEETING SPACES.		
NOTES / EXCEPTIONS:		
THE EXISTING BUILDING HAS MORE THAN ONE ACCESSIBLE ENTRANCE. ALL ACCESSIBLE ENTRANCES WILL BE MAINTAINED.		
IEBC 809.1 MINIMUM FIXTURES: WHERE THE OCCUPANT LOAD OF A STORY IS INCREASED BY MORE THAN 20 PERCENT, PLUMBING FIXTURES FOR THE STORY SHALL BE PROVIDED IN QUANTITIES SPECIFIED IN THE IOWA PLUMBING CODE BASED ON THE INCREASED OCCUPANT LOAD. THE PROPOSED DESIGN WILL NOT INCREASE THE OCCUPANT LOADS OF ANY STORY MORE THAN 20%.		
ENERGY CODE: 2018 INTERNATIONAL ENERGY CONSERVATION CODE		
CLIMATE ZONE: 5		
PRESCRIPTIVE METHOD	REQUIREMENT	BUILDING DESIGN
INSULATION ENTIRELY ABOVE DECK	U-0.032 OR R-30	5.5" POLYISOCYANURATE R-5.6 x 5.5" = R-30.8 R-30.8 > R-30 : OK
WALLS ABOVE GRADE (MASS) - CONTINUOUS INSULATION	U-0.090 OR R-11.4ci	SURFACE OUTSIDE AIR FILM R-0.17 CONCRETE (OUTER) R-0.189 EXTRUDED POLYSTYRENE R-15 CONCRETE (INNER) R-0.378 SURFACE INSIDE AIR FILM R-0.68 R-16.417 R-16.417 > R-11.4 : OK
WALLS ABOVE GRADE- METAL FRAMED	U-0.064 OR R-13 + 7.5ci	5/8" FIRE TRTD SHTG ADHERED TO 2" POLYISO R-12.9ci 5/8" GYPSUM SHTG R-0.56 FIBERGLASS BATT INSUL R-13 5/8" GYPSUM BOARD R-0.56 R-14.12 + 12.9ci PERCENTAGE OF : OK
WALLS ABOVE GRADE- OTHER- OPAQUE CURTAINWALL PANELS	U-0.064 OR R-13 + R-3.8ci OR R-20	2 1/4" x 7" THERMALLY BROKEN ALUM FRAMING = R-1.11 GLAZING 1" MIN AIRSPACE R-4.16 ALUMINUM BACKPAN R-1 4" MINERAL WOOL BOARD R-19 ALUMINUM BACKPAN R-0.61 PERCENT OF ASSEMBLY ALUM FRAMING AT 4" OC <14% PERCENT OF ASSEMBLY OPAQUE PANELS >86% TOTAL COMPONENT R VALUE = 19.4 MIN $R-19.40 > U-0.051 \rightarrow U-0.051 < U-0.064 \rightarrow$ OK
UNHEATED SLABS	F-0.54 OR R-10 FOR 24" BELOW	2" EXTRUDED POLYSTYRENE FOR 24" R-5 X 2 = R-10 R-10 = R-10 : OK SEE WALL SECTIONS AND DETAILS FOR INSTALLING UNDERSLAB INSULATION. THE TYPICAL CONFIGURATION WILL BE R-10 MIN RIGID INSULATION EXTENDING VERTICALLY FROM 1" BELOW T1 SLAB TO B1SLAB THEN 2'-0" HORIZONTALLY INWARD FROM FOUNDATION WALL. COVER THE VERTICAL INSULATION LAYER AT THE BUILDING'S INTERIOR WITH 1" NON-SHRINK GROUT ACTING AS A THERMAL BARRIER FOR THE FOAM PLASTIC RIGID INSULATION.
FIXED FENESTRATION - (NO DEDUCTION TAKEN FOR EX OVERHANGS)	U-0.38 & SHGC 0.38 (SEW) U-0.38 & SHGC 0.51 (N)	GLAZING AS SPECIFIED U-0.24 & SHGC 0.21 : OK
ENTRANCE DOORS	U-0.77	
SECTION C502 ADDITIONS		
NOTES / EXCEPTIONS:		
C502.2.1 VERTICAL FENESTRATION: VERTICAL FENESTRATION ADDED BY THE ADDITION IN THIS PROJECT WILL RESULT IN THE TOTAL BUILDING FENESTRATION AREA BEING LESS THAN 30% OF THE TOTAL ABOVE GRADE WALL AREA. NEW FENESTRATION WILL COMPLY WITH C402.4.3.		



B OCCUPANCY	
ASSEMBLY USE OL	68 (1023 NSF)
STORAGE/MECH USE OL	4 (992 GSF)
BUSINESS AREA	17,447 GSF
OLF	150 GSF
TOTAL OL	188

B OCCUPANCY	
ASSEMBLY USE OL	70 (1042 NSF)
BUSINESS AREA	15,872 GSF
OLF	150 GSF
TOTAL OL	176

A-2 OCCUPANCY	
ASSEMBLY AREA	1749 NSF
OLF	15 NSF
TOTAL OL	117

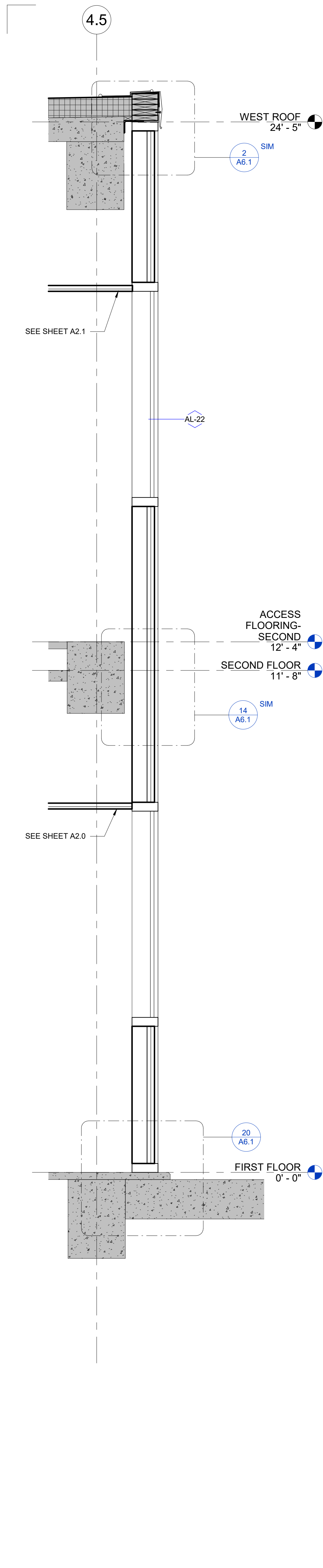
A-2 OCCUPANCY	
ASSEMBLY AREA	1118 NSF
OLF	15 NSF
TOTAL OL	75

B OCCUPANCY	
STORAGE/MECH USE OL	23 (6967 GSF)
BUSINESS AREA	15,738 GSF
OLF	150 GSF
TOTAL OL	128

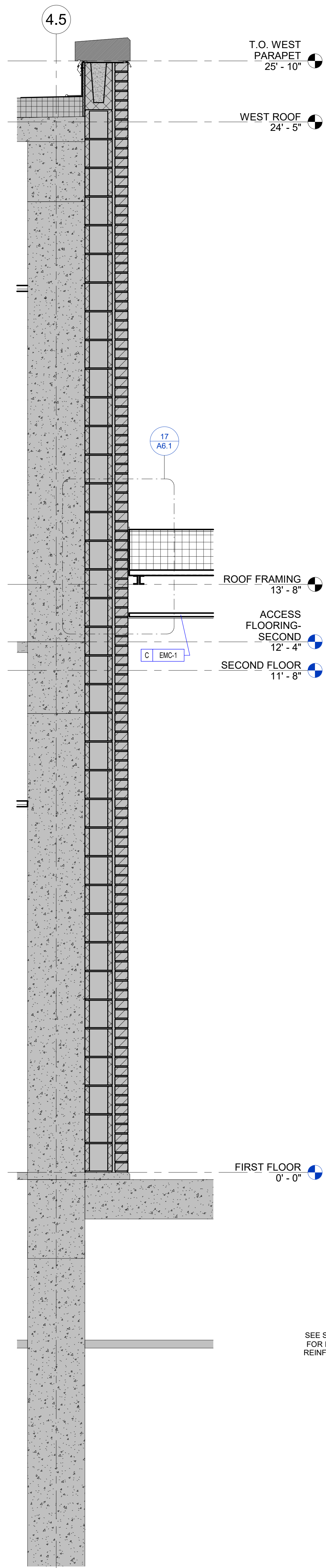
CODE LEGEND	
---	1 HOUR FIRE RATED ASSEMBLY
- - -	2 HOUR FIRE RATED ASSEMBLY
FEC	FIRE EXTINGUISHER AND CABINET
→	ACTUAL EXIT OR STAIR WIDTH
→	NUMBER OF OCCUPANTS REQUIRED WITHIN FOR A DF OCCUPANTS
#	# OF OCCUPANTS TO MEANS OF EGRESS
⊙	# TOTAL OCCUPANTS

Rev	Description	Date
1	APPENDIX 3	02-13-2024
2	Project Number: 22072	02-13-2024
3	Issued for Bidding	02-13-2024
4	Project Manager MEM	Issued for Construction

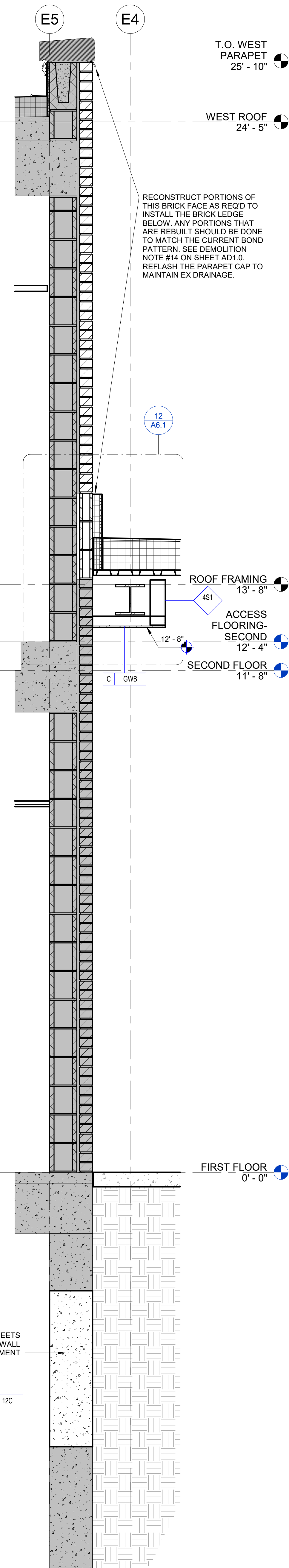




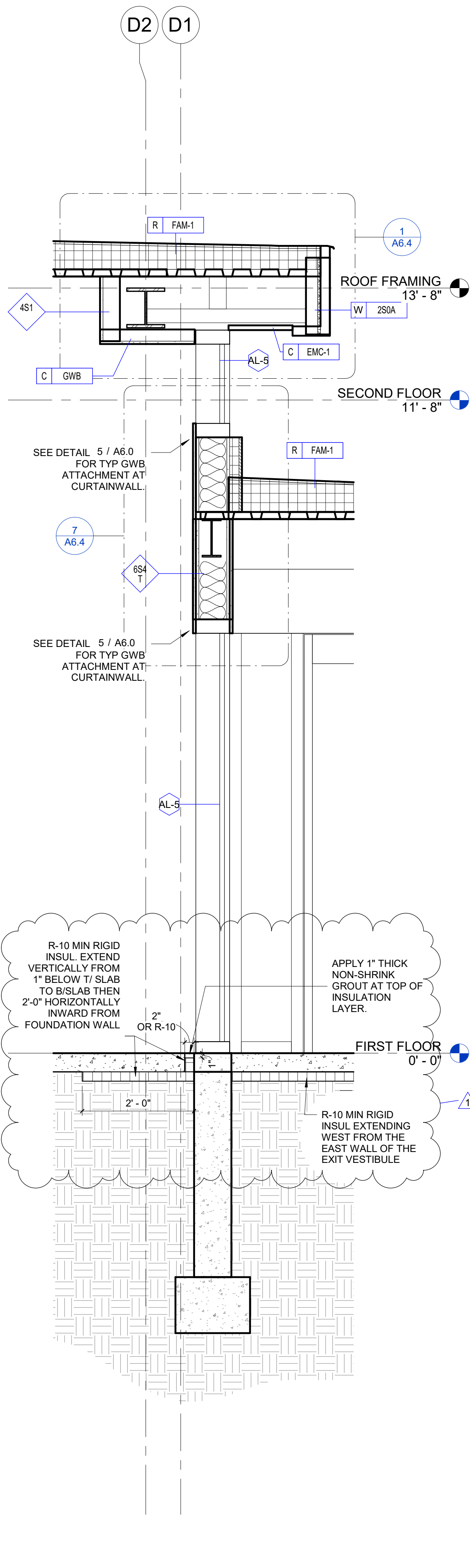
25 EAST WALL SECTION- WEST WING  
3/4" = 1'-0"



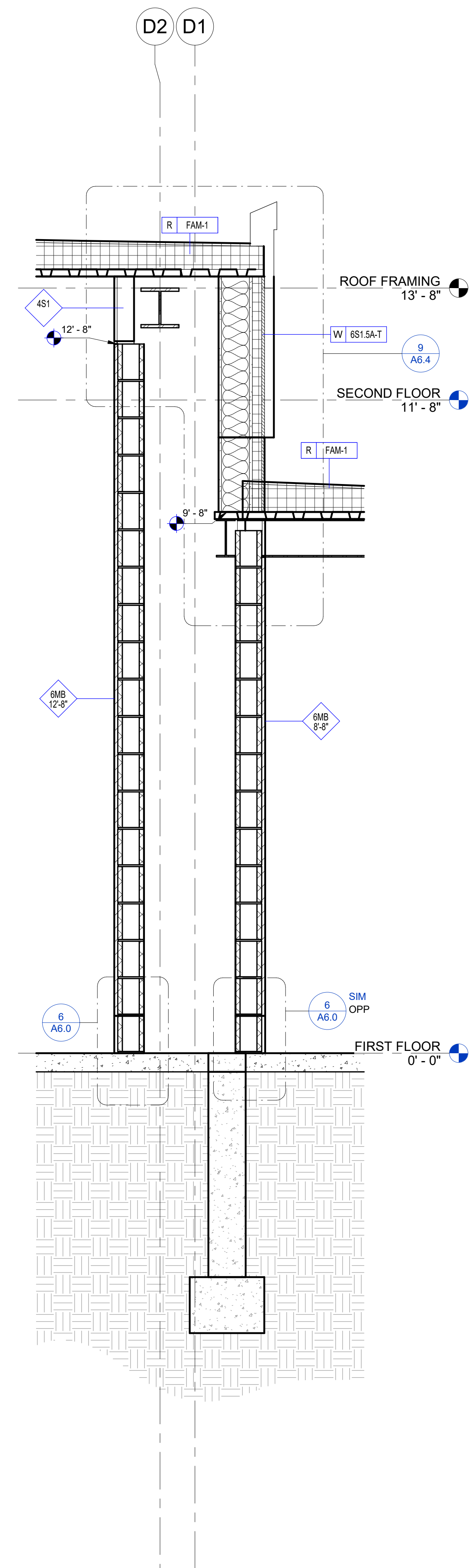
26 VESTIBULE OVERHANG AT EAST WALL  
3/4" = 1'-0"



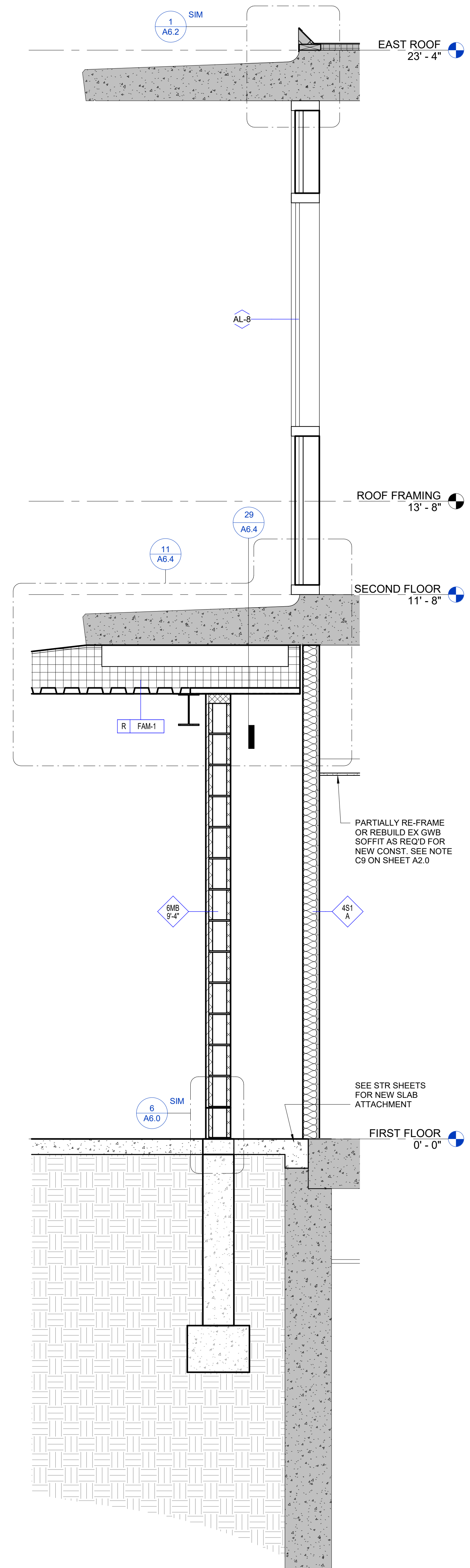
27 EXISTING BRICK WALL AT UPPER VESTIBULE  
3/4" = 1'-0"



28 UPPER VESTIBULE TO LOWER VESTIBULE  
3/4" = 1'-0"



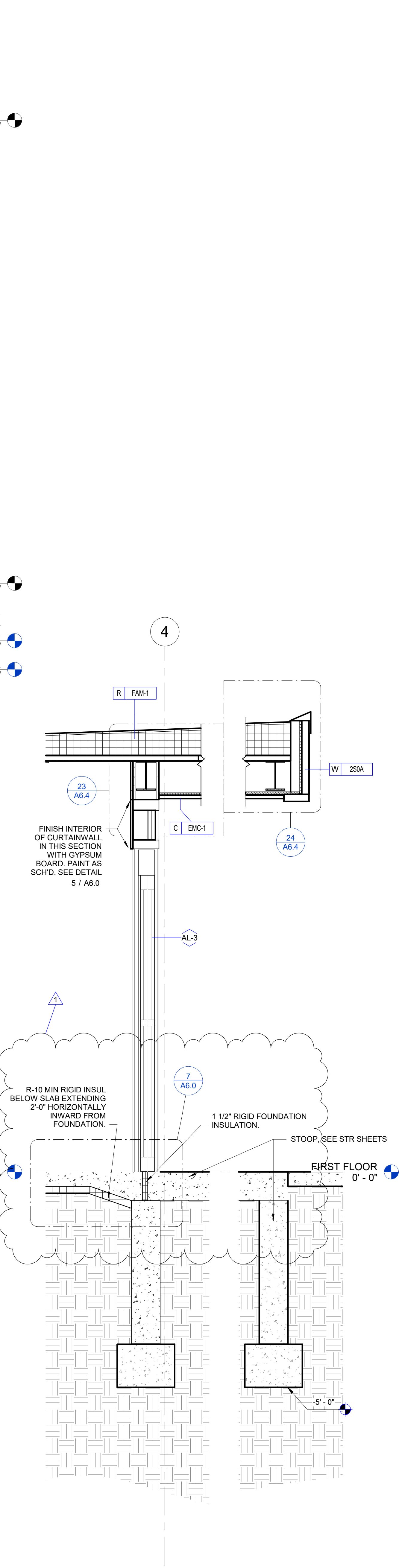
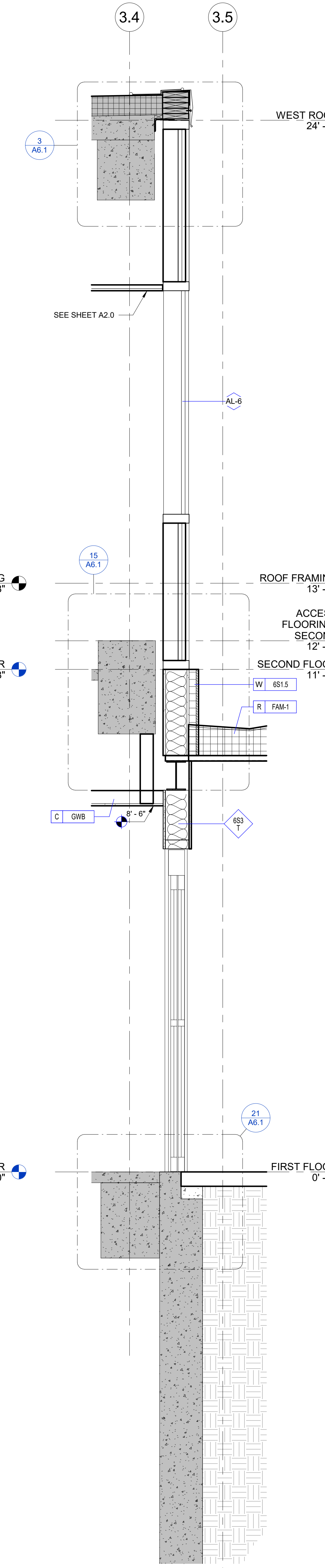
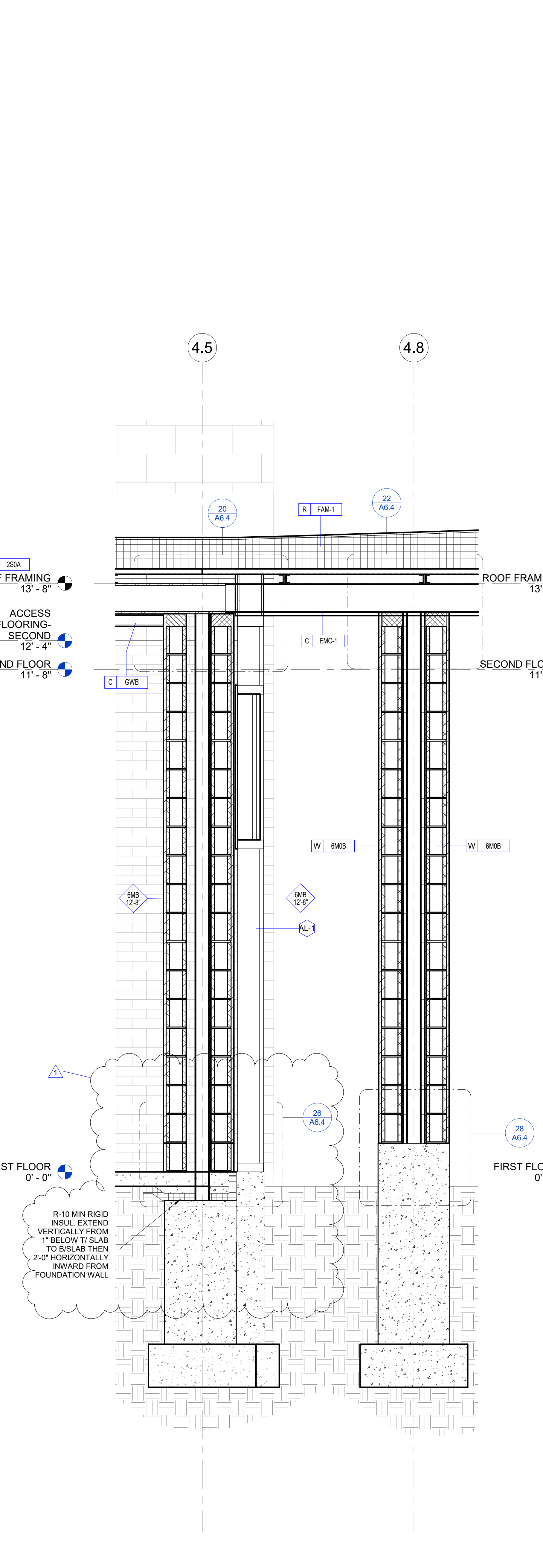
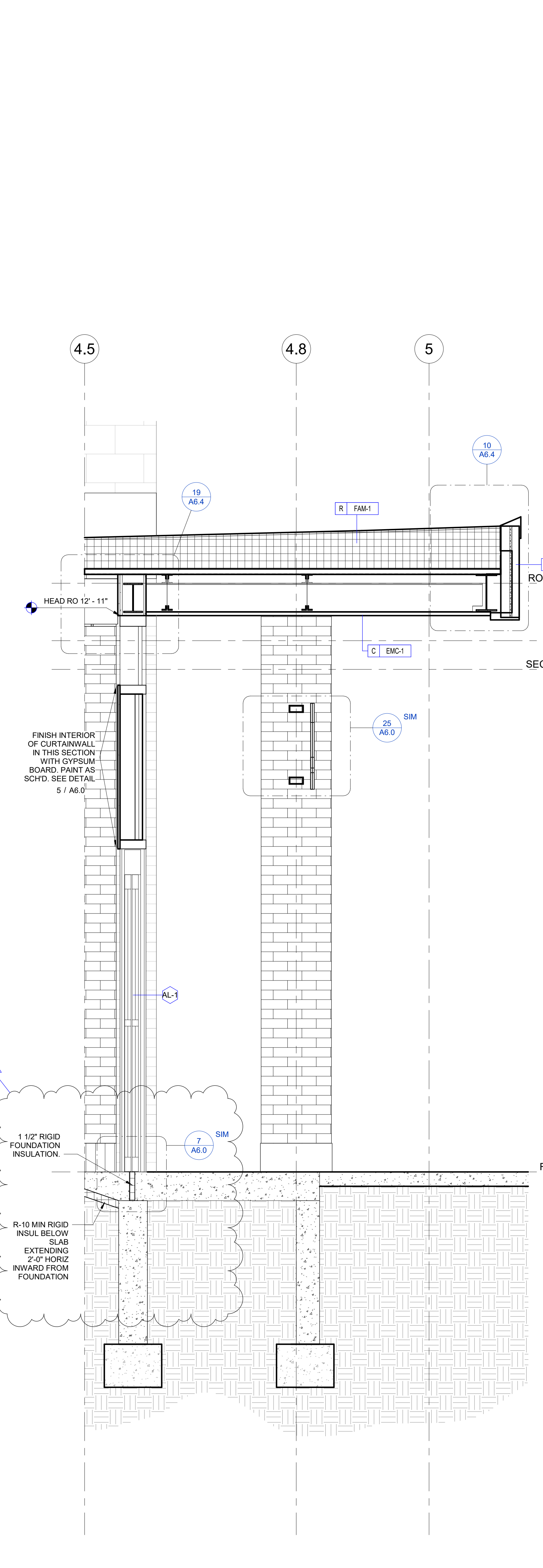
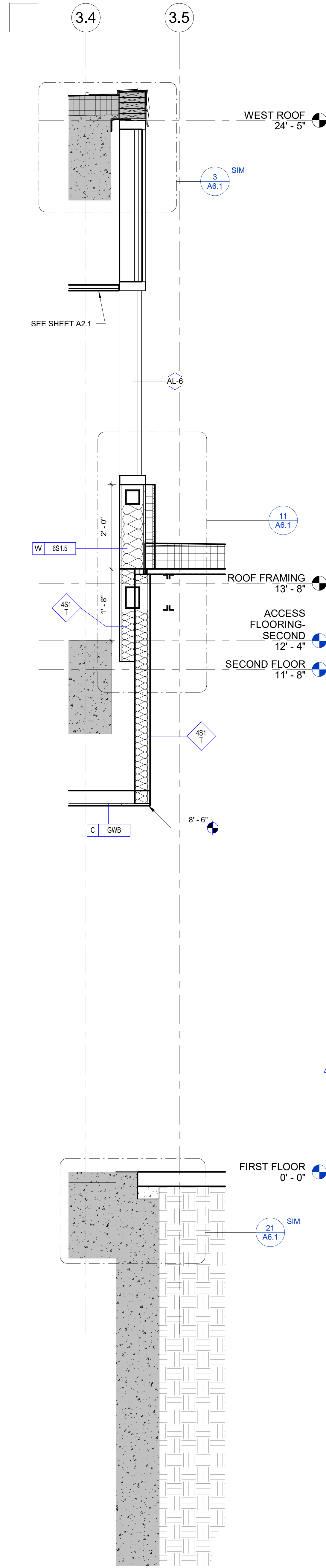
29 VESTIBULE CHASE  
3/4" = 1'-0"



30 EXISTING NORTH WALL AT LOWER VESTIBULE  
3/4" = 1'-0"

Revisions	Date	Description
1	02-13-2024	Issued for Construction
2	02-13-2024	Issued for Bidding
3	02-13-2024	Issued for Construction





25 CURTAIN WALL AT UPPER VESTIBULE  
 3/4" = 1'-0"

26 ENTRY WALL SECTION  
 3/4" = 1'-0"

28 ENTRY WALL AT COLUMN COVER  
 3/4" = 1'-0"

29 CURTAINWALL AT LOWER VESTIBULE  
 3/4" = 1'-0"

30 LOWER VESTIBULE CANOPY  
 3/4" = 1'-0"

Client Name  
 CLINTON COUNTY

Project Name  
 ADMINISTRATION  
 BUILDING -  
 ADDITION &  
 ALTERATIONS

Location / Description  
 1900 N. 3RD ST.  
 CLINTON, IA 52732

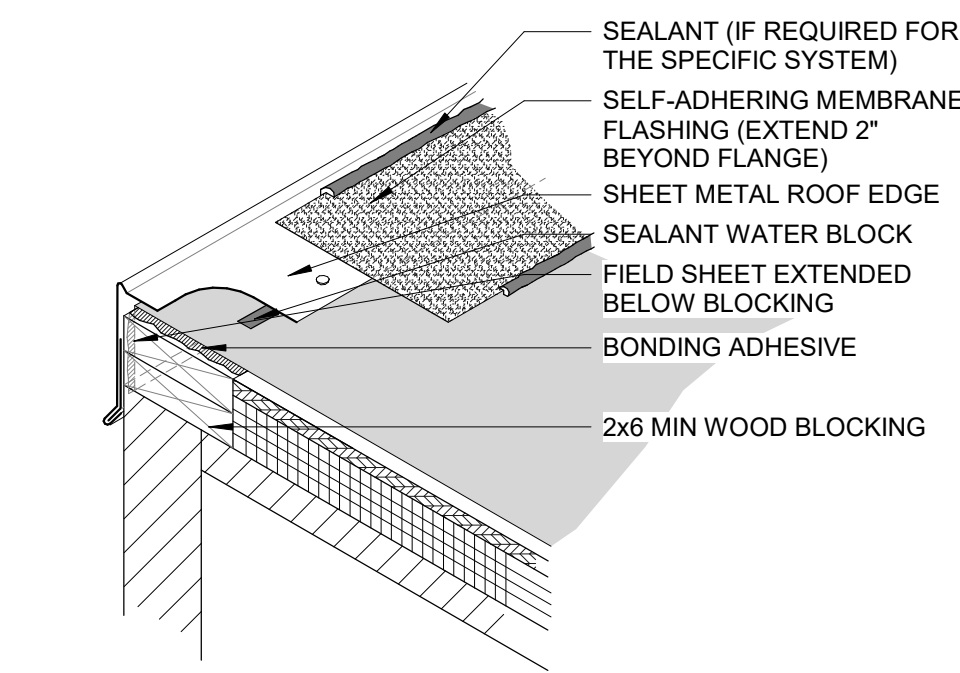
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1	ADDPENDUM 3	Issued for Bidding	02-13-2024
2	ADDPENDUM 3	Issued for Construction	02-13-2024

Sheet Title

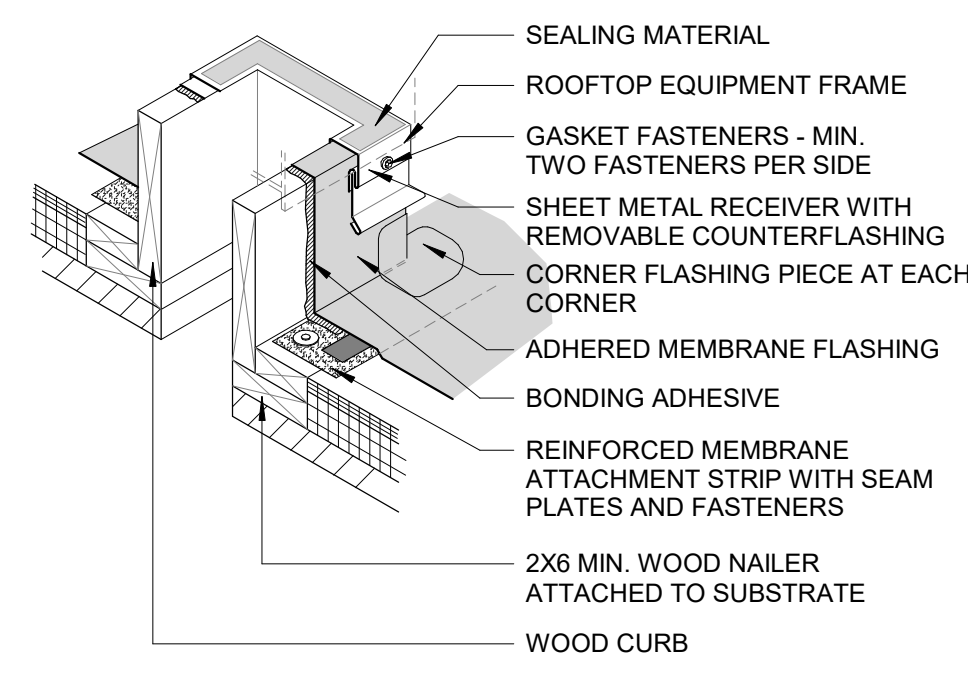
WALL SECTIONS

A5.5

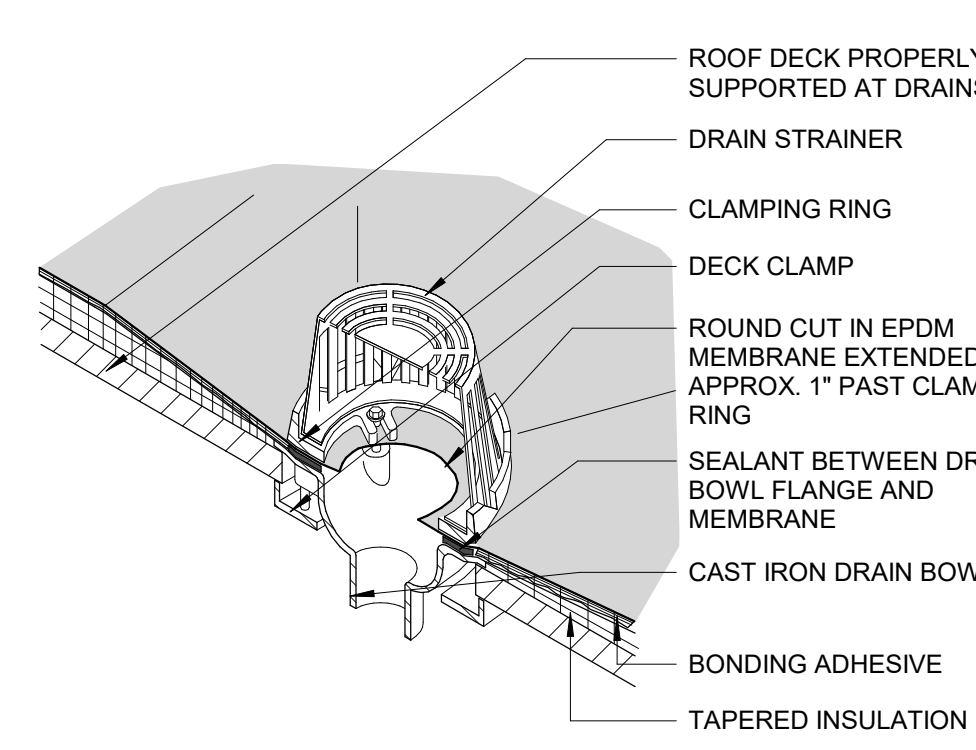




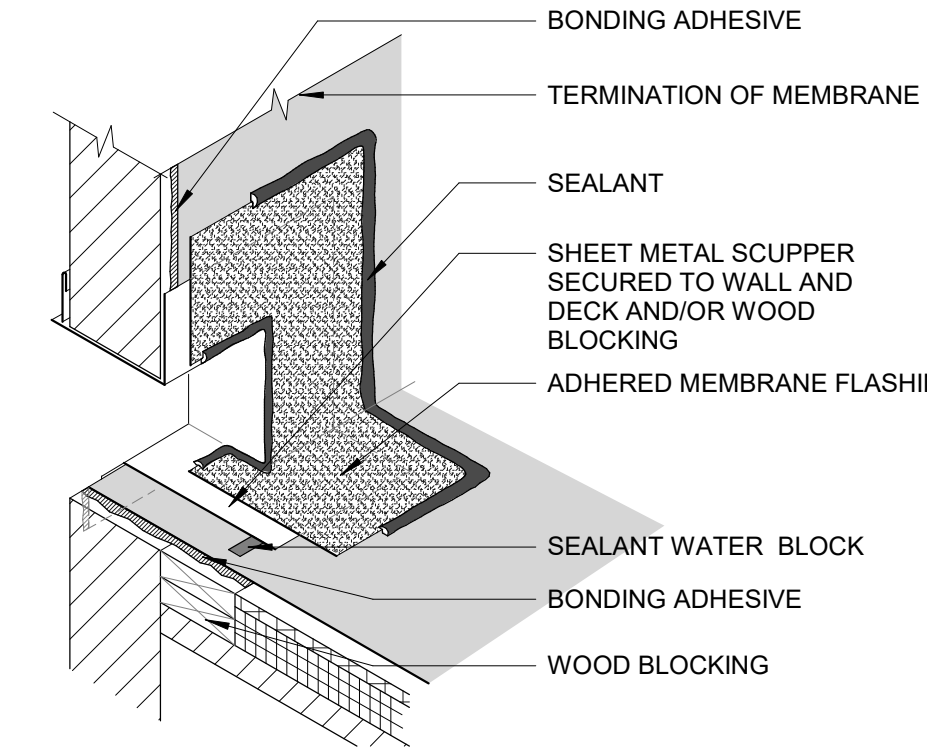
1 ROOF EDGE FLASHING AT CURTAINWALL  
NOT TO SCALE



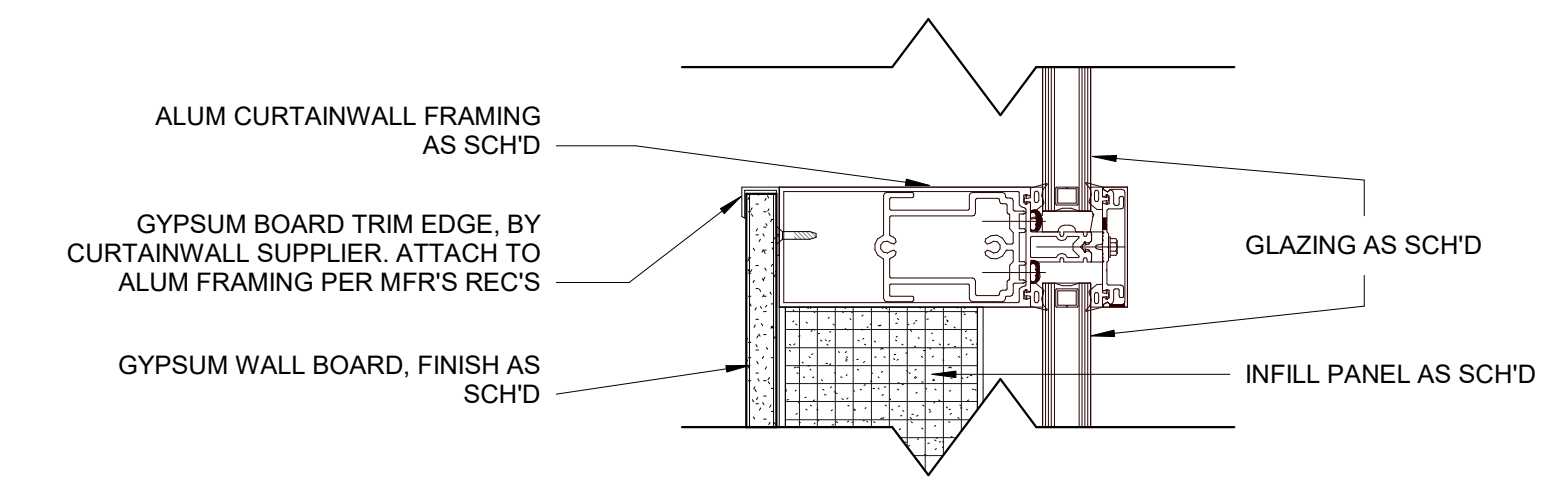
2 TYP CURB DETAIL  
NOT TO SCALE



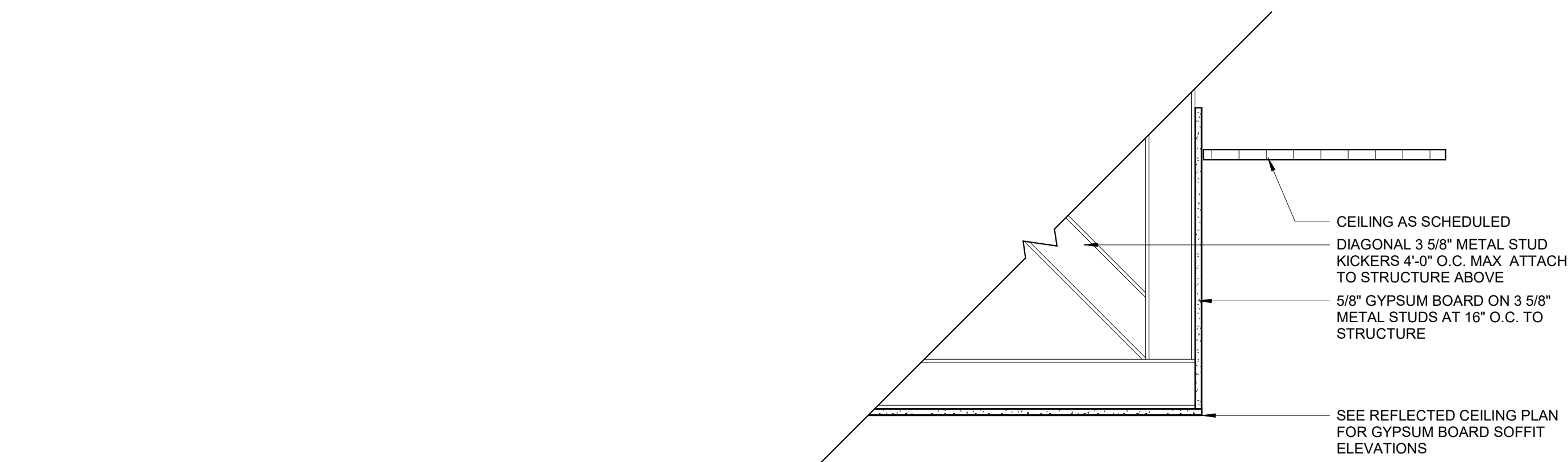
3 TYP ROOF DRAIN DETAIL  
NOT TO SCALE



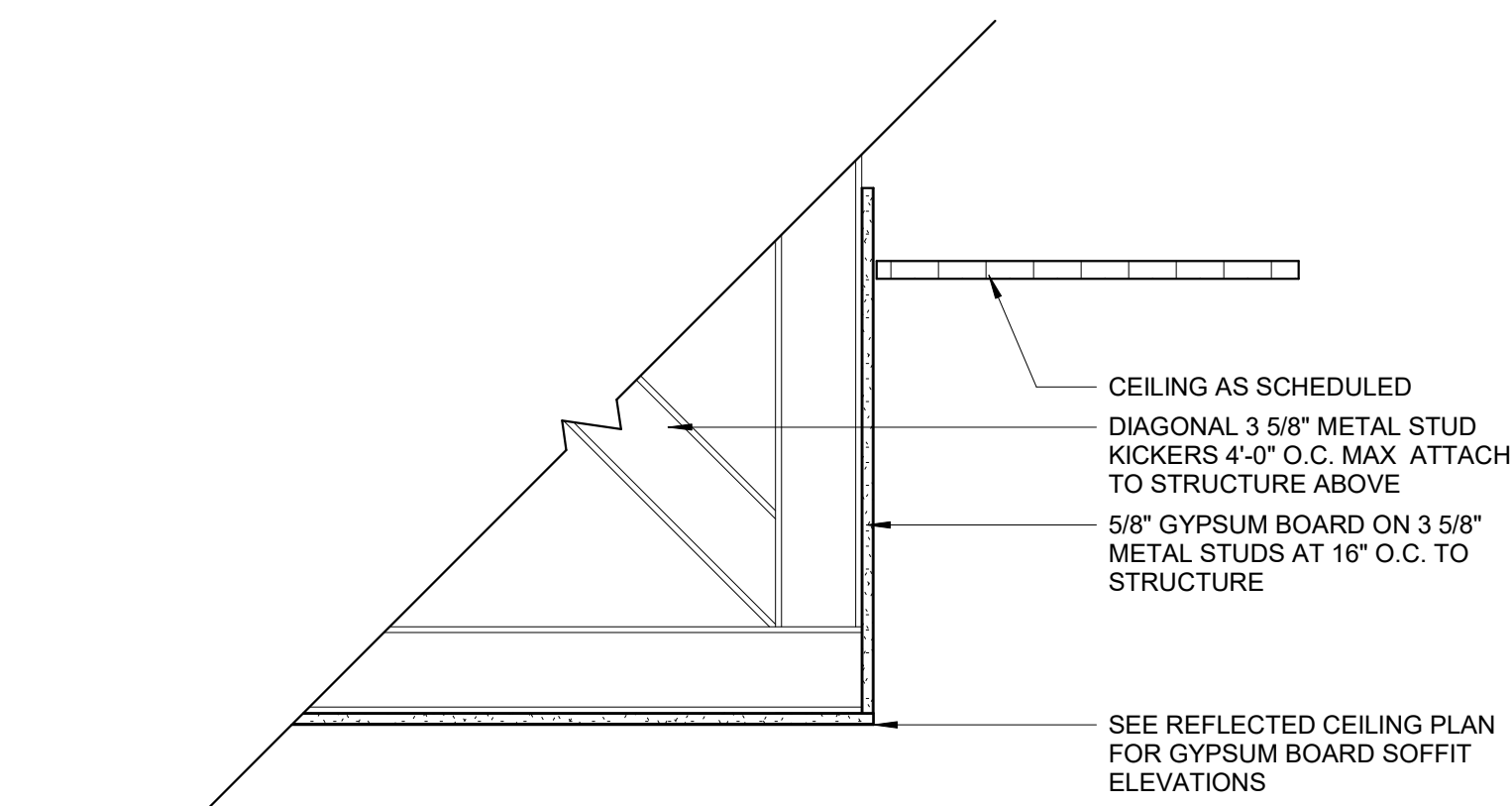
4 TYP SCUPPER OPENING DETAIL  
NOT TO SCALE



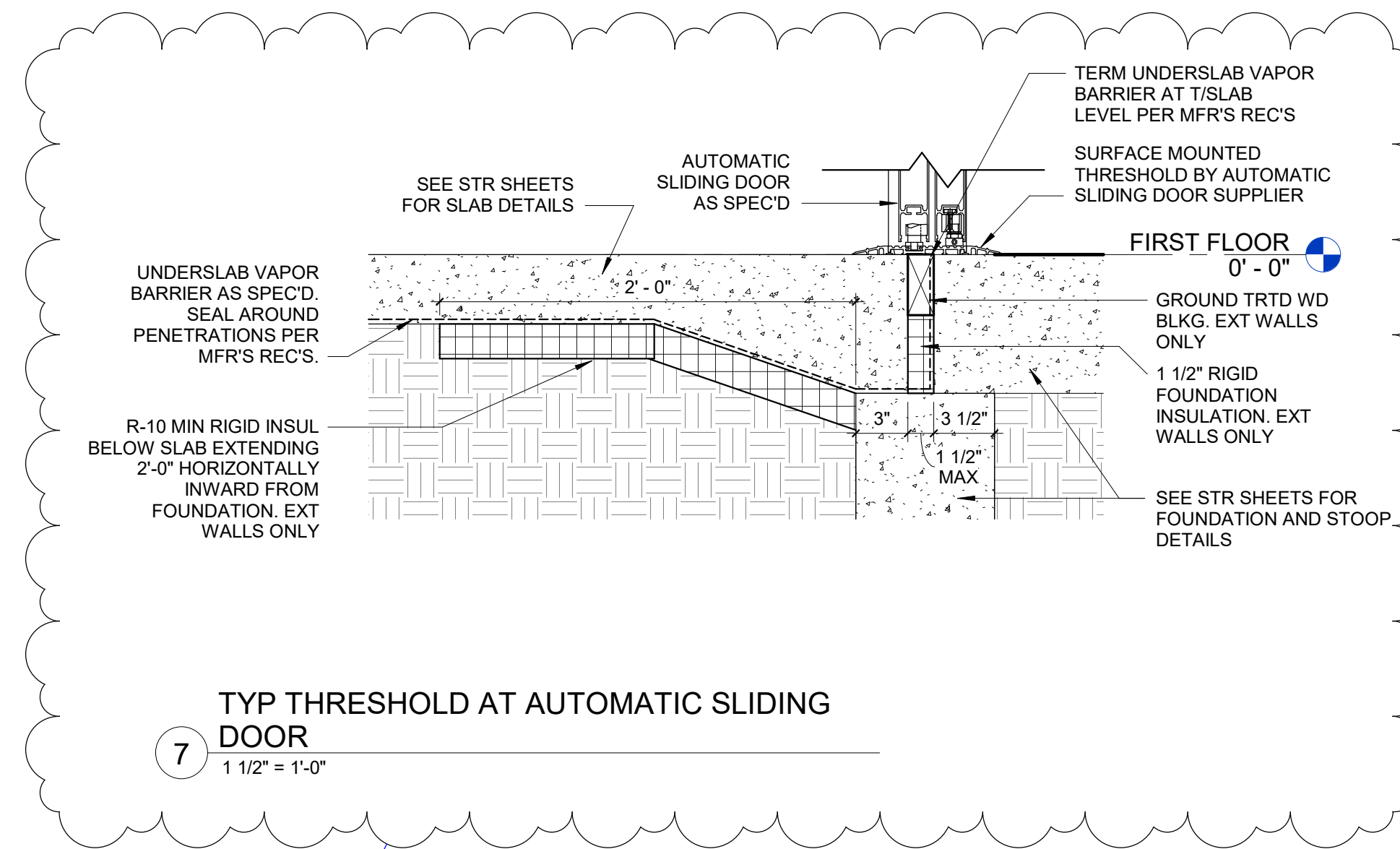
5 TYPICAL APPLIED GYPSUM BOARD TRIM DETAIL AT CURTAINWALL  
3\"/>



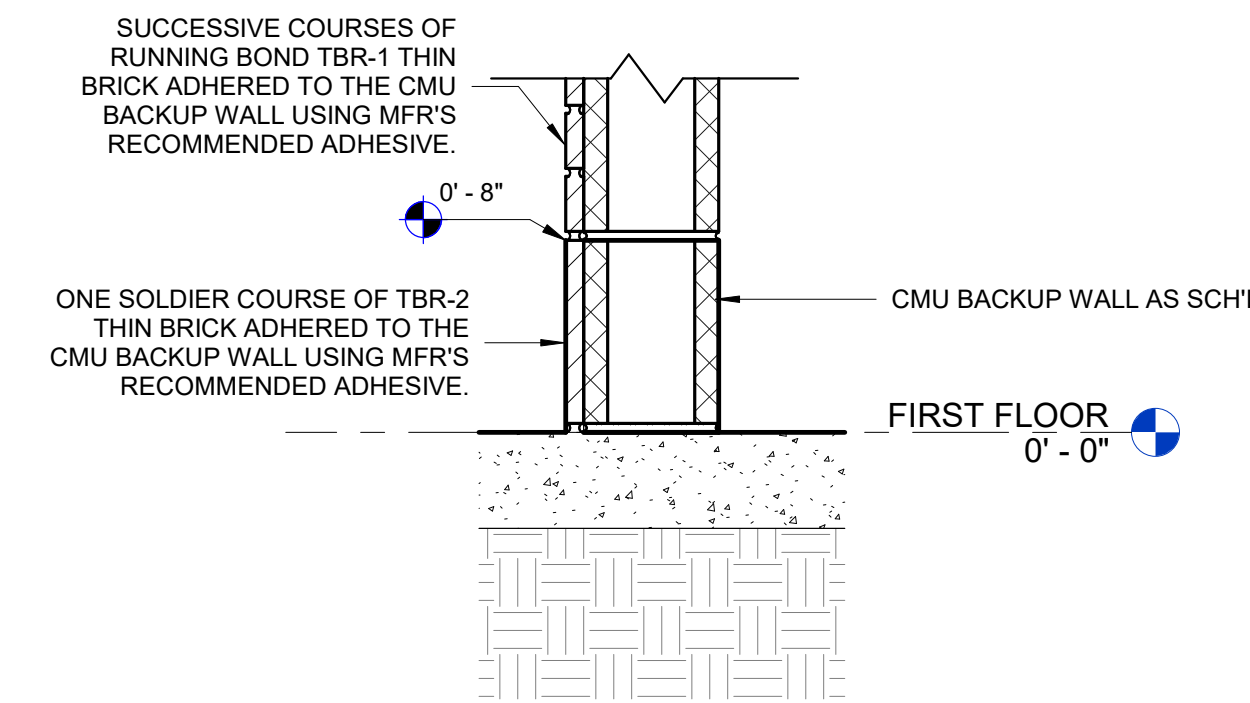
13 TYP INT CEILING BULKHEAD DETAIL  
1 1/2\"/>



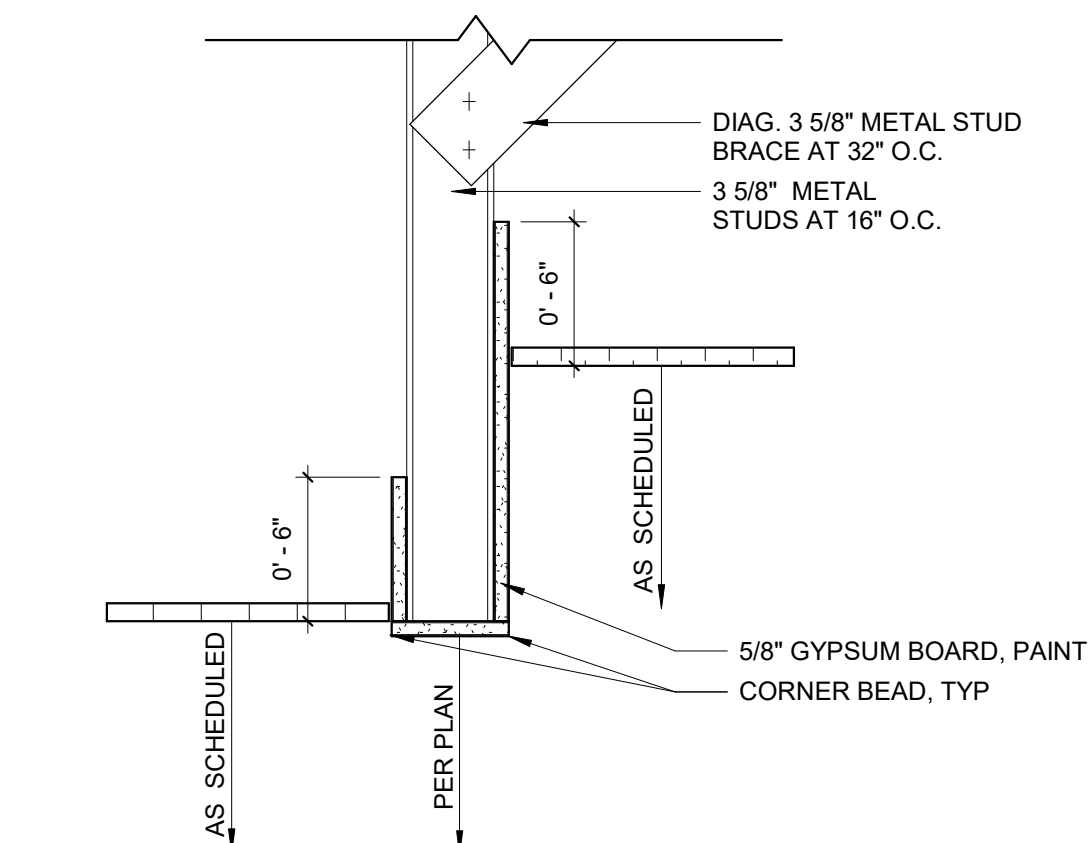
14 TYP INT CEILING GYP BD SOFFIT  
1 1/2\"/>



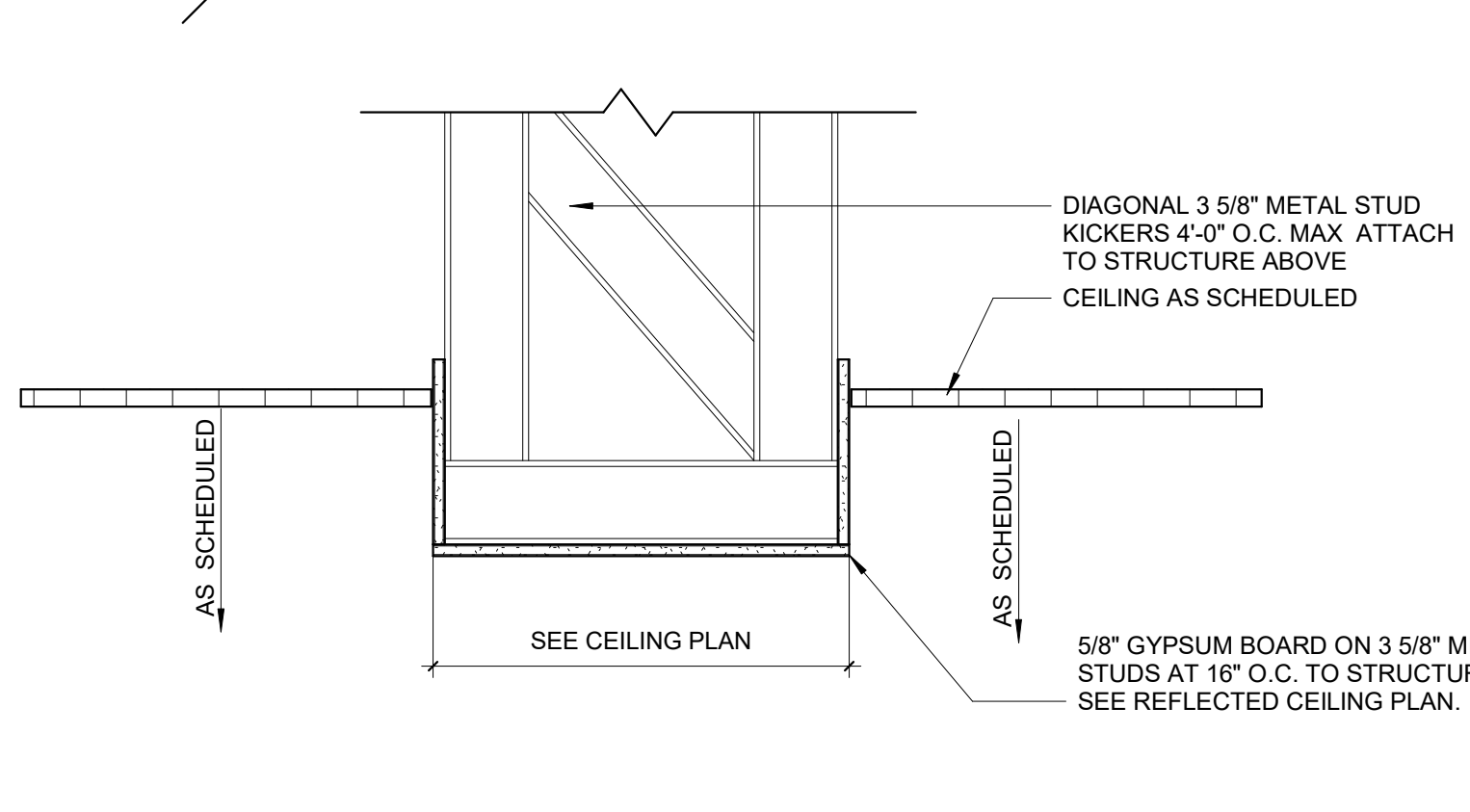
7 TYP THRESHOLD AT AUTOMATIC SLIDING DOOR  
1 1/2\"/>



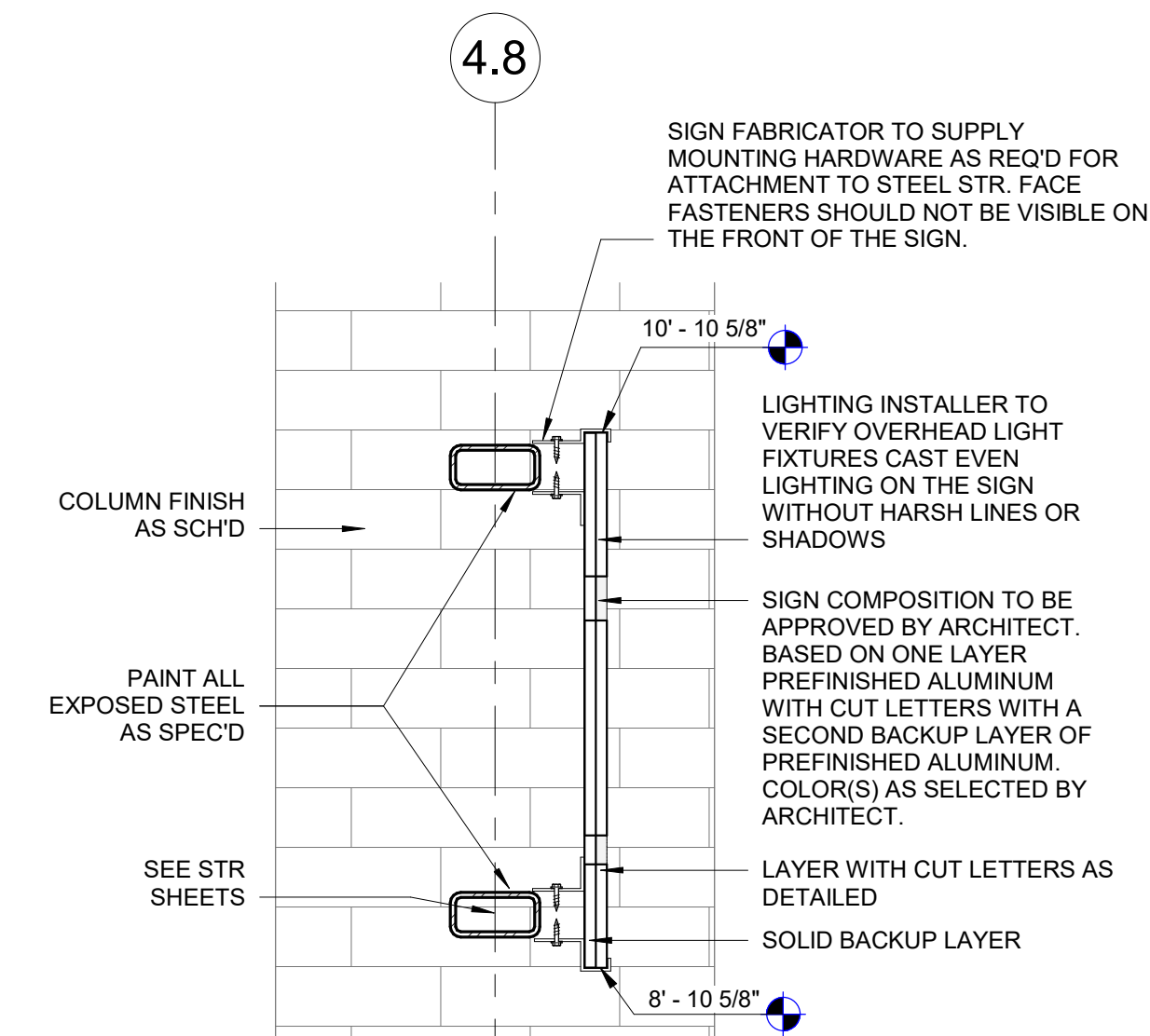
6 TYP INTERIOR BRICK BASE DETAIL  
1 1/2\"/>



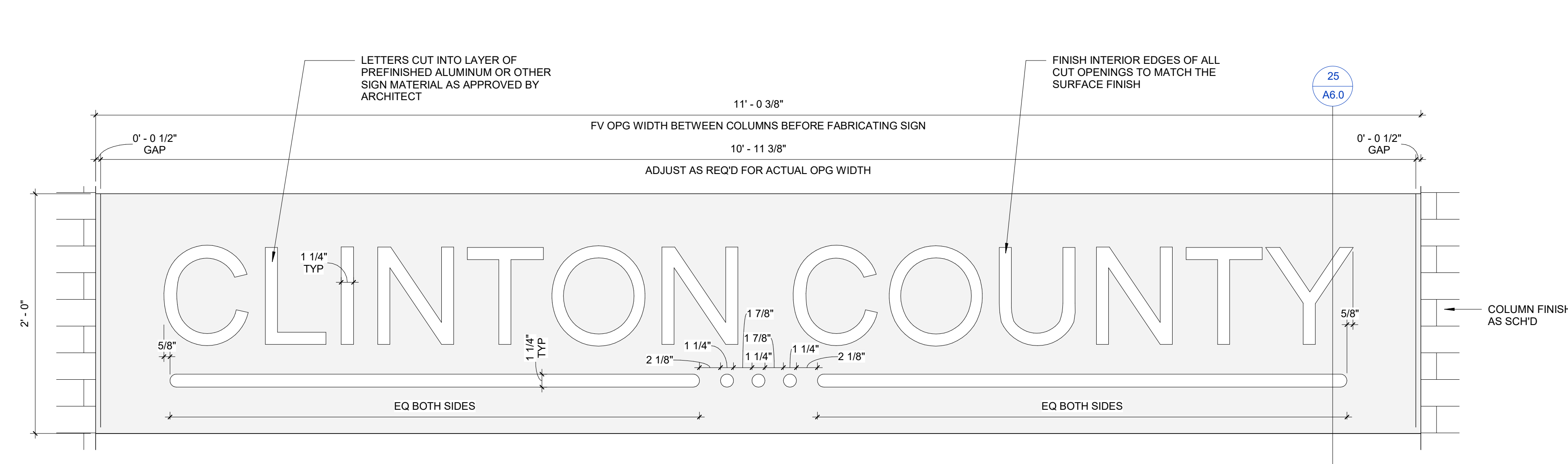
13 TYP INT CEILING BULKHEAD DETAIL  
1 1/2\"/>



14 TYP INT CEILING GYP BD SOFFIT  
1 1/2\"/>



25 ENTRY SIGNAGE SECTION  
1 1/2\"/>



25 ENTRY SIGNAGE ELEVATION  
1 1/2\"/>

Client Name  
CLINTON COUNTY

Project Name  
ADMINISTRATION BUILDING - ADDITION & ALTERATIONS

Location / Description  
1900 N. 3RD ST.  
CLINTON, IA 52732

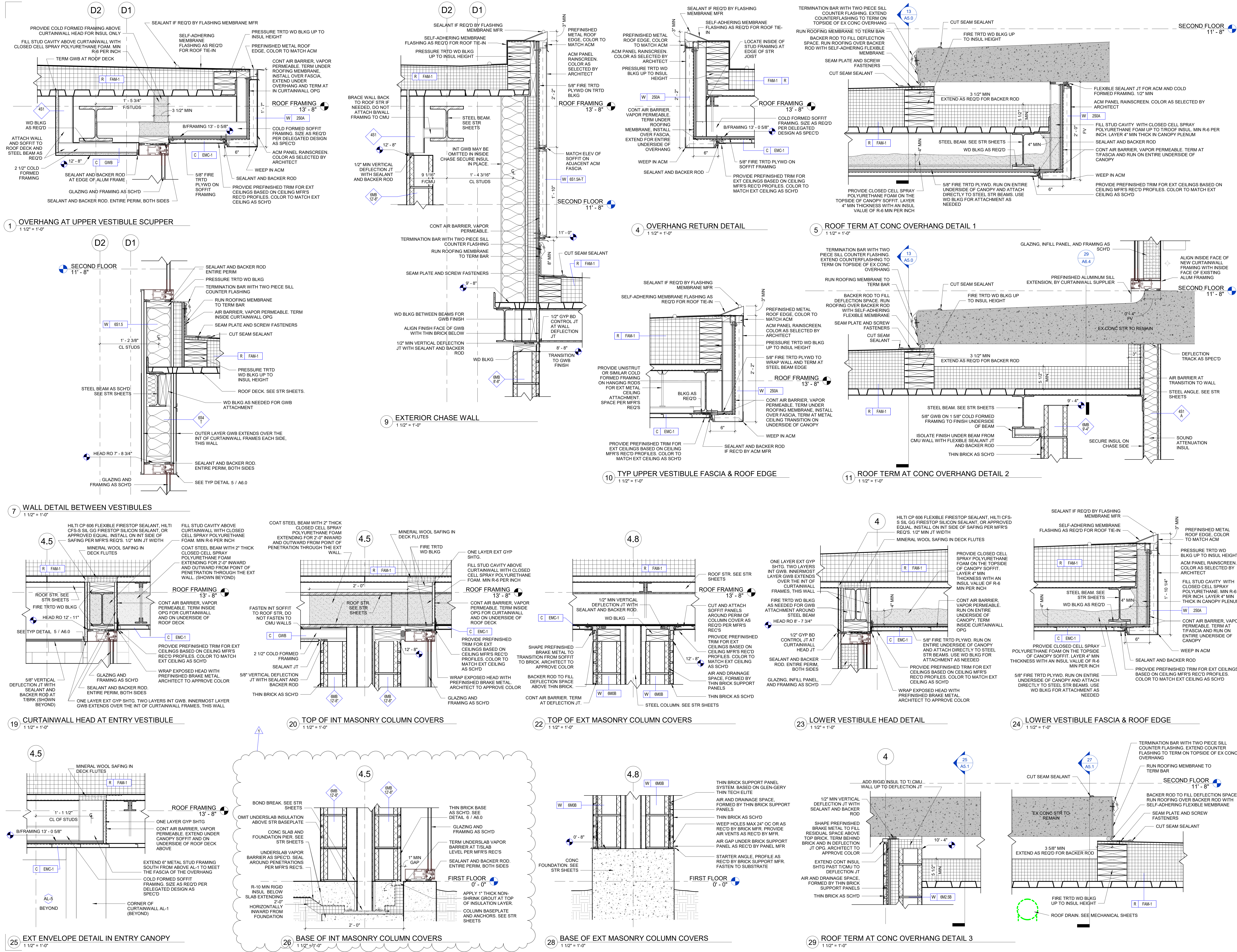
Revisions	1	ADDPENDUM 3	Rev Description	22072	Issued for Bidding	02-13-2024	Date
			Project Manager	MEM	Issued for Construction		

Sheet Title

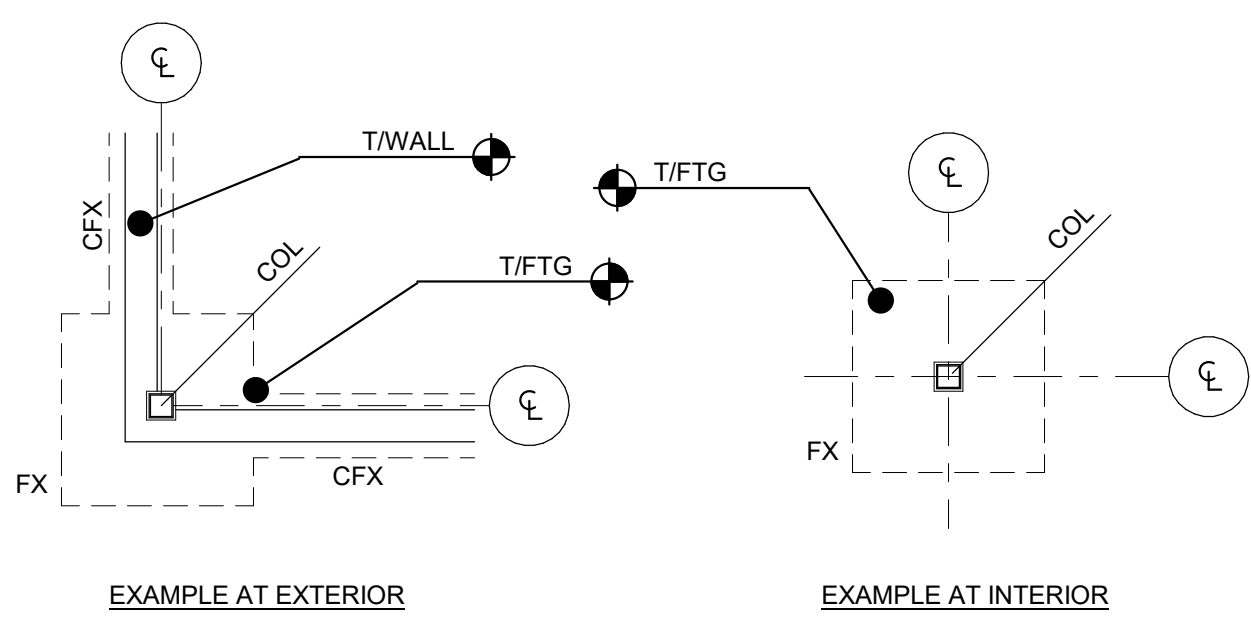
TYPICAL DETAILS

A6.0



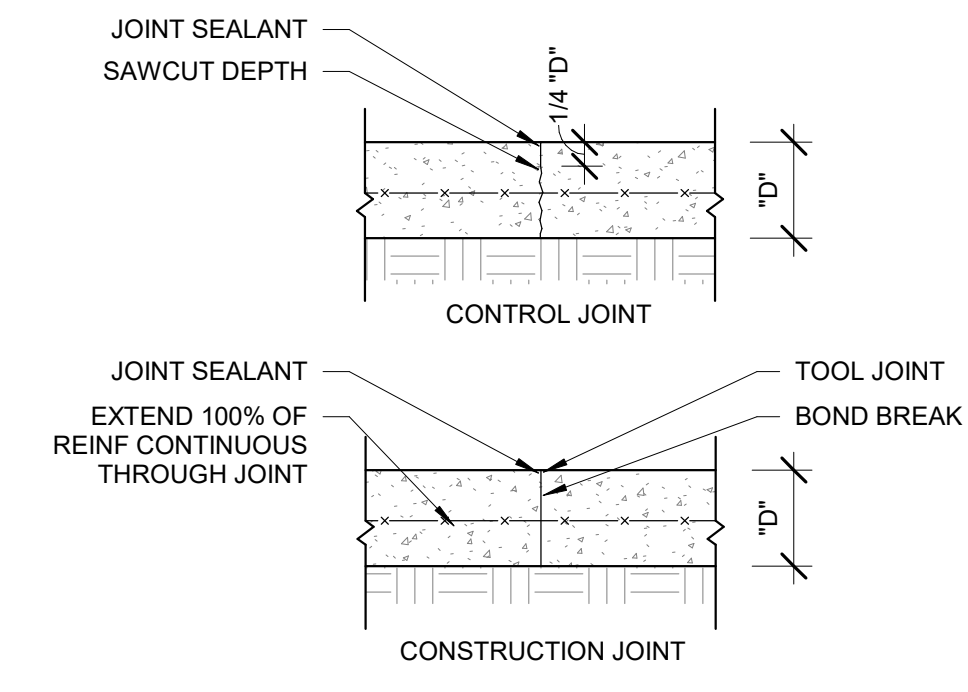




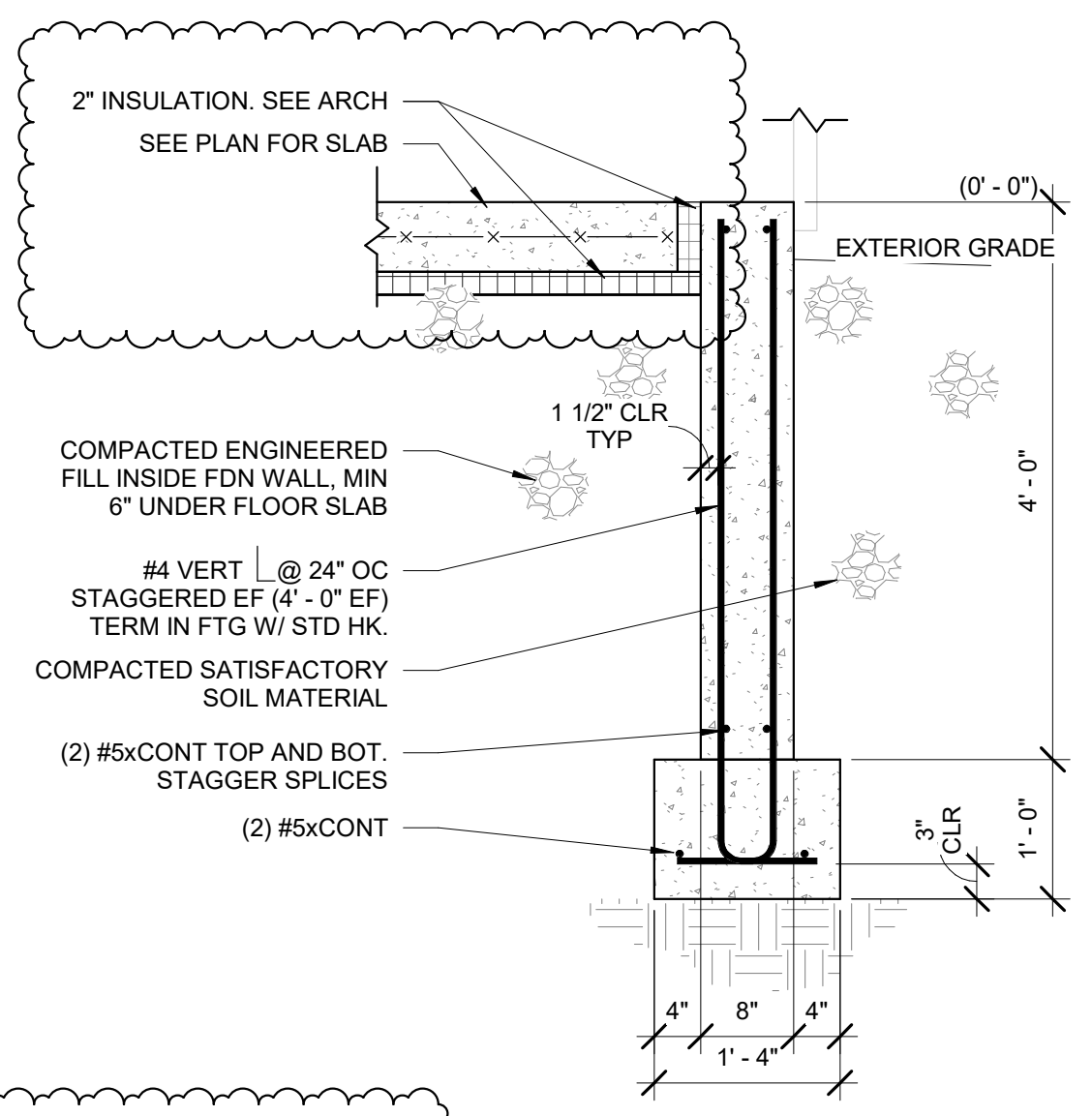


**LEGEND**

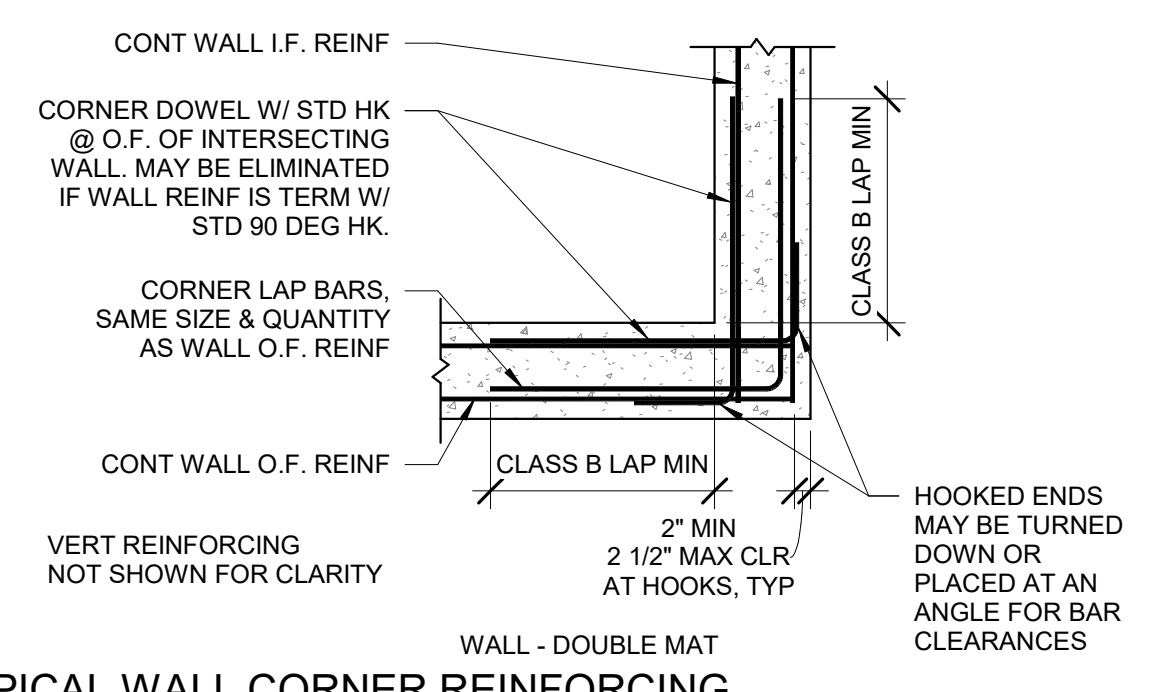
**1 FOUNDATION PLAN LEGEND**  
1" = 1'-0"



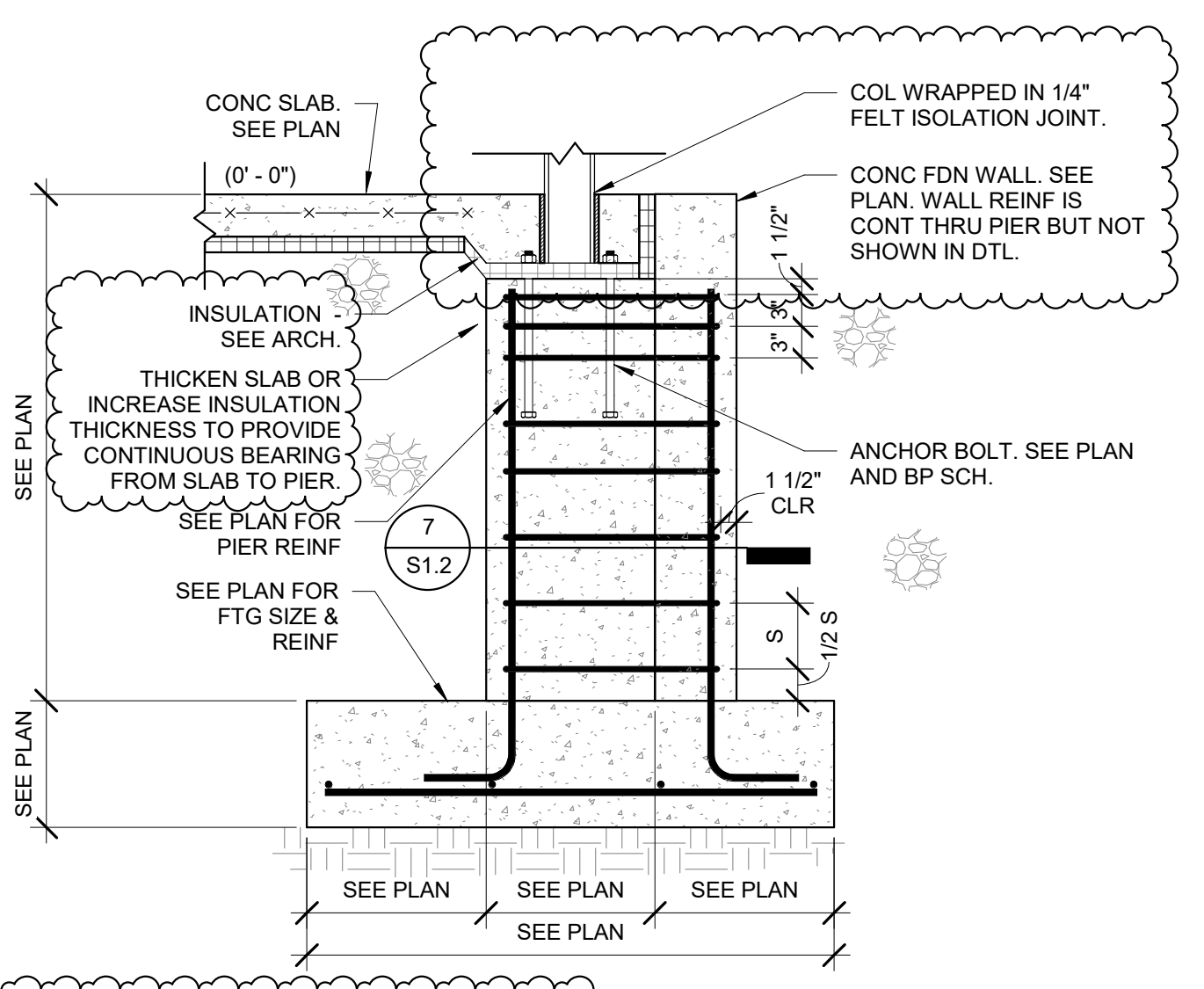
**2 TYPICAL SLAB ON GRADE JOINTS**  
1/2" = 1'-0"



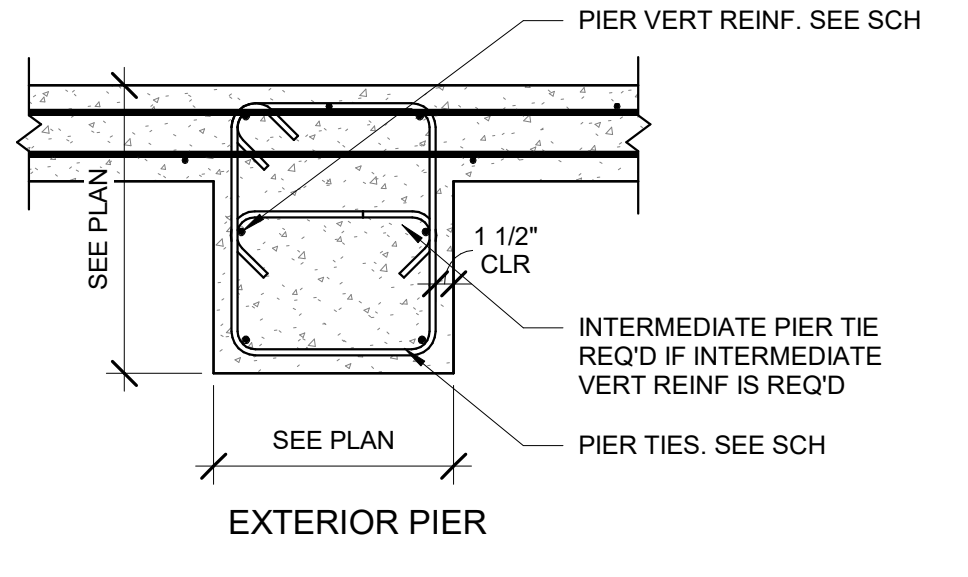
**3 TYPICAL 4'-0" WALL**  
3/4" = 1'-0"



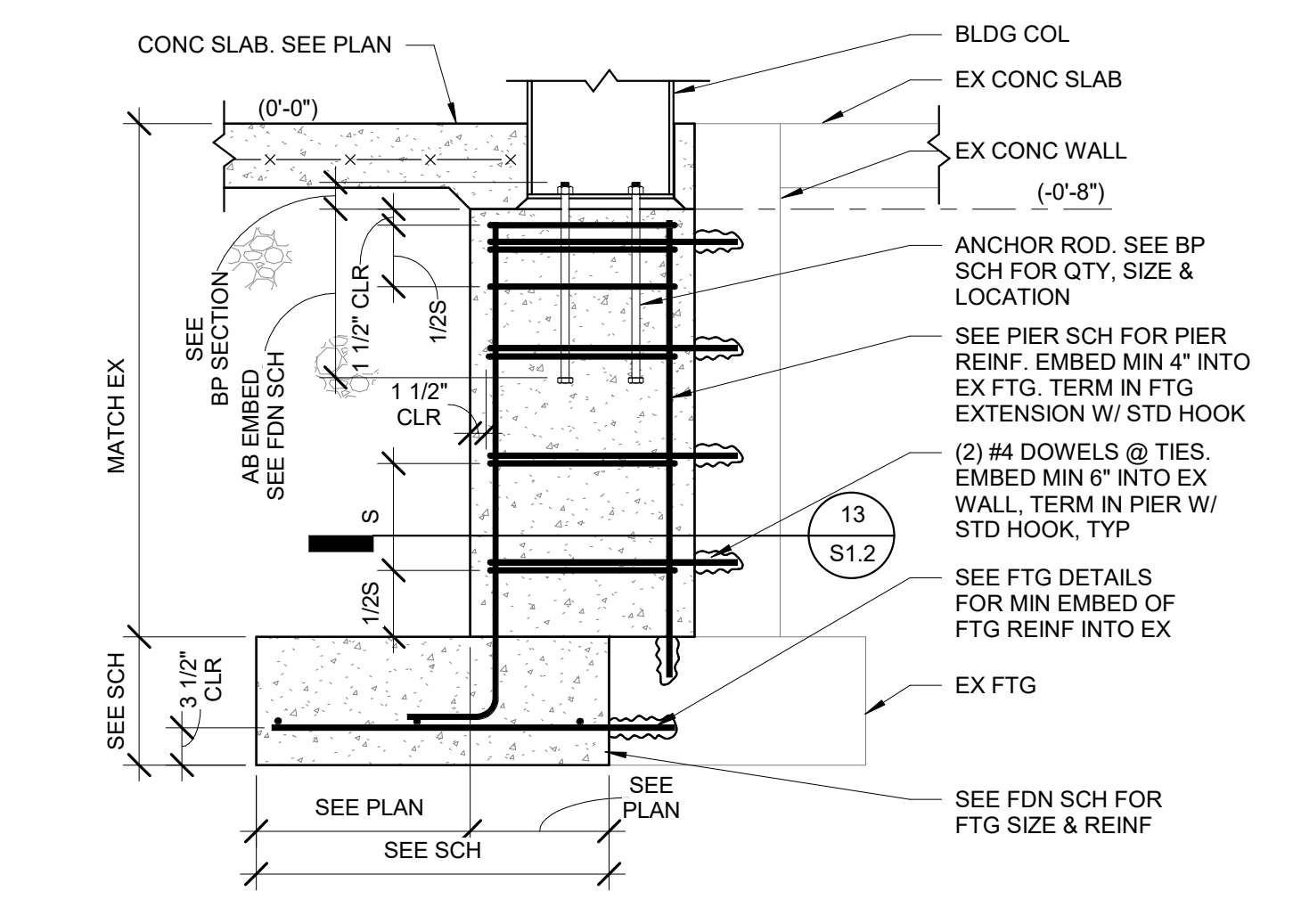
**4 TYPICAL WALL CORNER REINFORCING (DOUBLE MAT)**  
1/2" = 1'-0"



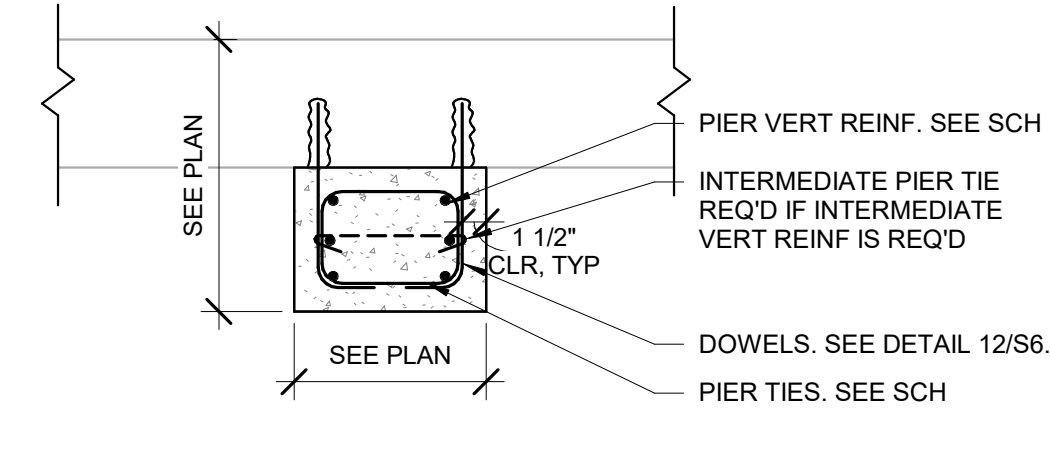
**6 TYPICAL EXTERIOR PIER**  
3/4" = 1'-0"



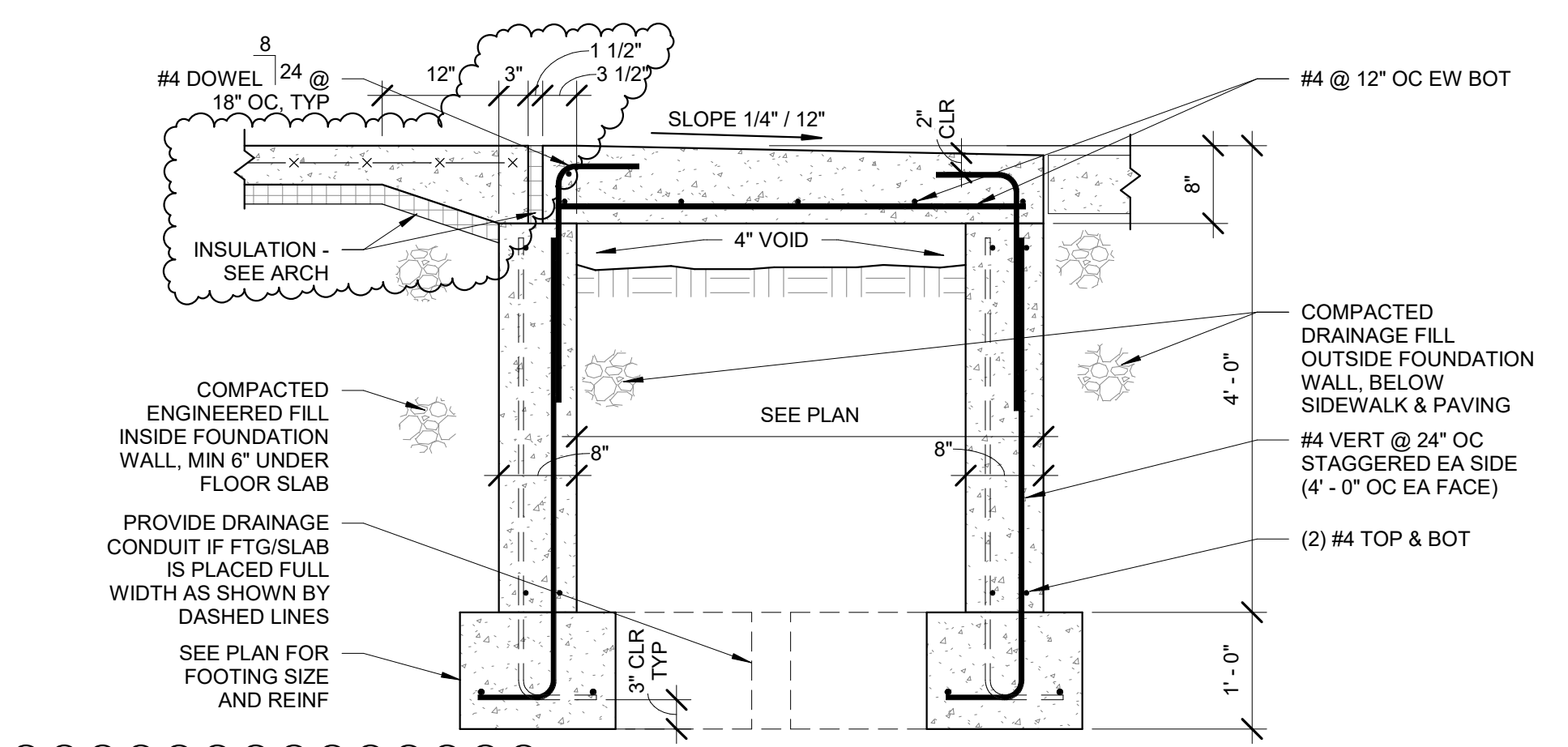
**7 TYPICAL PIER SECTION**  
3/4" = 1'-0"



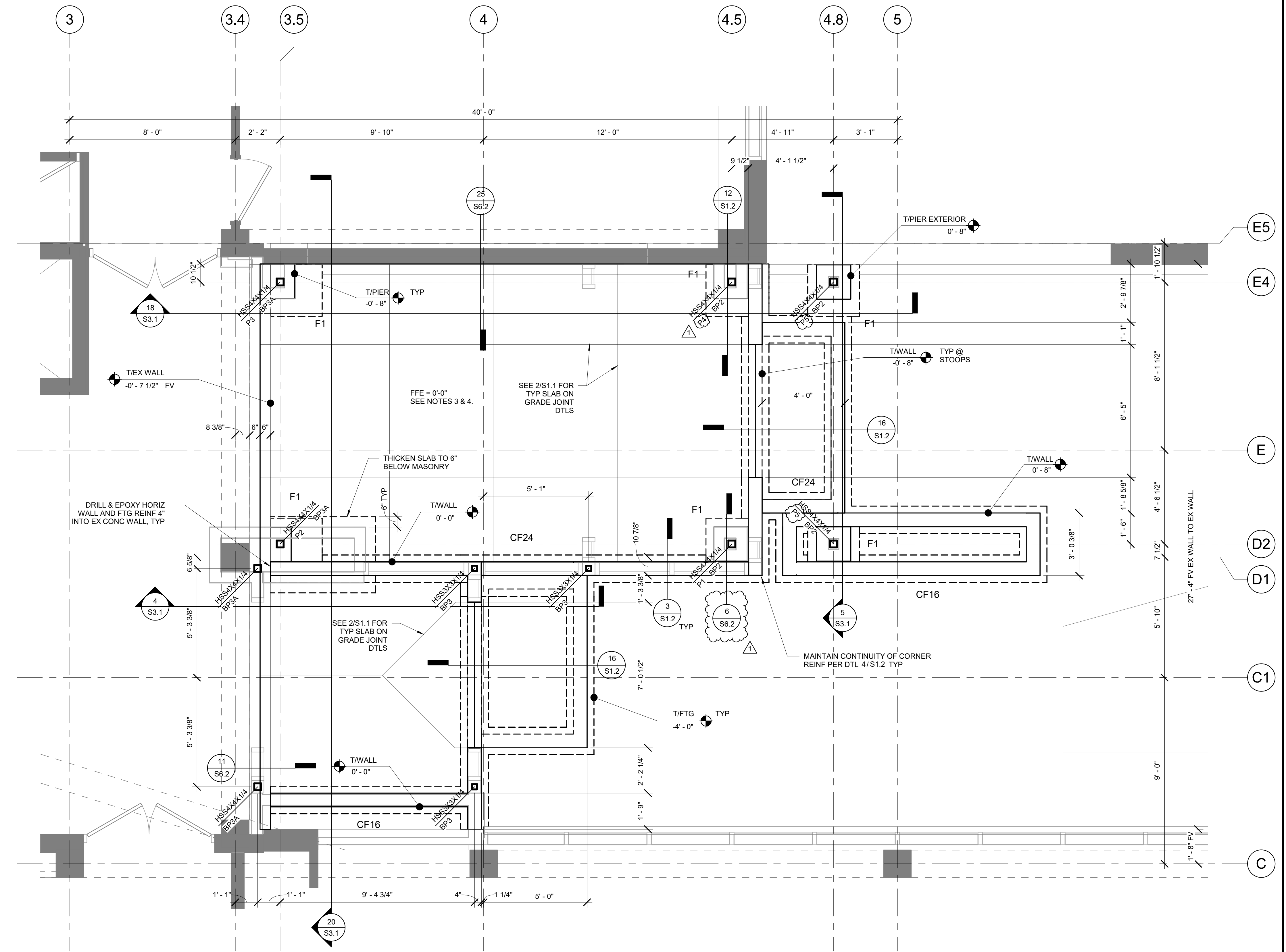
**12 TYPICAL PIER AT EXISTING WALL SECTION**  
3/4" = 1'-0"



**13 TYPICAL PIER AT EXISTING WALL**  
1" = 1'-0"



**16 TYPICAL STOOP SECTION**  
3/4" = 1'-0"



**22 VESTIBULE FOUNDATION PLAN**  
3/8" = 1'-0"

**FOUNDATION PLAN NOTES:**

- SEE SHEET S0.1 FOR STRUCTURAL DESIGN CRITERIA. SEE THIS SHEET FOR TYPICAL FOUNDATION DETAILS.
- BPX INDICATES STEEL BASE PLATE TYPE. SEE SHEET S6.1 FOR BASE PLATE DETAILS. COLUMNS BEAR AT 0'-0" UNO.
- FINISHED FLOOR ELEVATIONS SHALL MATCH EXISTING ELEVATIONS AT ALL INTERFACES.
- FLOOR CONSTRUCTION: 4" CONCRETE SLAB-ON-GRADE ON 15 MIL VAPOR RETARDER OVER 12" COMPACTED GRANULAR FILL. REINFORCE THE SLAB WITH 6X6 W/ 4XW/4 W/WF CTDR IN THE SLAB. INSULATION REQ'D AROUND PERIMETER BUT IS NOT SHOWN ON PLAN. SEE ARCH AND DETAILS THIS SHEET.

CONTINUOUS FOOTING SCHEDULE				
MARK	WIDTH	THICKNESS	FOOTING REINFORCEMENT	
CF16	1'-4"	1'-0"	(3) #5 CONT	
CF24	2'-0"	1'-0"	(3) #5 CONT	

SPREAD FOOTING SCHEDULE				
MARK	LENGTH	WIDTH	FOOTING THICKNESS	FOOTING REINFORCEMENT
F1	2'-6"	2'-6"	1'-0"	(3) #5 EW BOT

CONCRETE PIER SCHEDULE			
PIER MARK	PIER SIZE	VERTICAL REINFORCING	TIES
P1	28"x28"	(10) #6	#3 @ 12" OC W/ INTERMEDIATE TIES
P2	28"x12"	(4) #6	#3 @ 12" OC
P3	20"x14"	(4) #6	#3 @ 12" OC
P4	20"x28"	(10) #5	#3 @ 10" OC W/ INTERMEDIATE TIES
P5	20"x20"	(8) #5	#3 @ 10" OC W/ INTERMEDIATE TIES

Client Name  
**CLINTON COUNTY**

Project Name  
**ADMINISTRATION BUILDING - ADDITION & ALTERATIONS**

Location / Description  
**1900 N 3RD ST. CLINTON, IA 52732**

Rev	Description	Date
1	APPENDIX 3	09-05-24
2	Project Number: 22072	02-13-2024
3	Issued for Bidding	
4	Project Manager: MEM	
5	Issued for Construction	

Sheet Title

**VESTIBULE FOUNDATION PLAN AND DETAILS**

**S1.2**



Clinton County		
PROJECT:	Addition and Alterations	PROJECT NUMBER: 22-086
		DATE: March 5, 2024

NOTE { THIS ADDENDUM HAS BEEN ISSUED TO MODIFY AND/OR INTERPRET THE BIDDING DOCUMENTS, INCLUDING THE DRAWINGS AND SPECIFICATIONS. UNLESS OTHERWISE INSTRUCTED, THE INFORMATION CONTAINED ON THE ADDENDUM SHALL TAKE PRECEDENCE OVER ANYTHING CONTRARY ON THE ORIGINAL BIDDING DOCUMENTS AND SHALL BE HEREINAFTER CONSIDERED AS A PARTY OF THE BIDDING DOCUMENTS.

**SPECIFICATIONS**

SECTION 232113 HYDRONIC PIPING

1. **REVISE** entire specification section.

**PLANS**

SHEET MD200 GROUND FLOOR MECHANICAL DEMOLITION PLAN

1. Demolition Referenced Notes
  - A. **ADD** Note 14 to read: "Hot water supply and return risers are to remain unaltered. Remove horizontal piping between existing riser and fin tubes. Refer to detail on sheet M501."
2. Ground Floor Mechanical Piping Demolition Plan
  - A. **ADD** Note 14 to heating water supply and return riser locations. See reissued sheet for more details.

SHEET MD201 FIRST FLOOR MECHANICAL DEMOLITION PLAN

1. Demolition Referenced Notes
  - A. **ADD** Note 14 to read: "Hot water supply and return risers are to remain unaltered. Remove horizontal piping between existing riser and fin tubes. Refer to detail on sheet M501."
2. Ground Floor Mechanical Piping Demolition Plan
  - A. **ADD** Note 14 to heating water supply and return riser locations. See reissued sheet for more details.

SHEET MD202 SECOND FLOOR MECHANICAL DEMOLITION PLAN

1. Demolition Referenced Notes
  - A. **ADD** Note 14 to read: "Hot water supply and return risers are to remain unaltered. Remove horizontal piping between existing riser and fin tubes. Refer to detail on sheet M501."
2. Ground Floor Mechanical Piping Demolition Plan
  - A. **ADD** Note 14 to heating water supply and return riser locations. See reissued sheet for more details.

SHEET M200 GROUND FLOOR MECHANICAL PLAN

1. Referenced Mechanical Notes
  - A. **ADD** Note 5 to read: "Connect adjacent fin tube runs to existing hot water supply riser. See detail on sheet M501."
  - B. **ADD** Note 6 to read: "CONNECT FIN TUBE RUN TO EXISTING HOT WATER RETURN RISER. PROVIDE AND INSTALL ONE (1) SET OF HYDRONIC SPECIALTIES IN LAST FIN TUBE ENCLOSURE BEFORE RISER. SEE DETAIL ON SHEET M501."
2. Ground Floor Mechanical Plan
  - A. **ADD** Note 6 to end of fin tube runs where they connect to the return risers. See reissued sheet for more details.
  - B. **ADD** Connect to existing symbol to hot water supply for fin tube run. See reissued sheet for more details.

SHEET M201 FIRST FLOOR MECHANICAL PLAN

1. Referenced Mechanical Notes
  - A. **ADD** Note 5 to read: "Connect adjacent fin tube runs to existing hot water supply riser. See detail on sheet M501."



- B. **ADD** Note 6 to read: "CONNECT FIN TUBE RUN TO EXISTING HOT WATER RETURN RISER. PROVIDE AND INSTALL ONE (1) SET OF HYDRONIC SPECIALTIES IN LAST FIN TUBE ENCLOSURE BEFORE RISER. SEE DETAIL ON SHEET M501."
- 2. First Floor Mechanical Plan
  - A. **ADD** Note 5 to hot water supply riser locations. See reissued sheet for more details.
  - B. **ADD** Note 6 to end of fin tube runs where they connect to the return risers. See reissued sheet for more details.

SHEET M202 SECOND FLOOR MECHANICAL PLAN

- 1. Referenced Mechanical Notes
  - A. **ADD** Note 5 to read: "Connect adjacent fin tube runs to existing hot water supply riser. See detail on sheet M501."
  - B. **ADD** Note 6 to read: "CONNECT FIN TUBE RUN TO EXISTING HOT WATER RETURN RISER. PROVIDE AND INSTALL ONE (1) SET OF HYDRONIC SPECIALTIES IN LAST FIN TUBE ENCLOSURE BEFORE RISER. SEE DETAIL ON SHEET M501."
- 2. Second Floor Mechanical Plan
  - A. **ADD** Note 5 to hot water supply riser locations. See reissued sheet for more details.
  - B. **ADD** Note 6 to end of fin tube runs where they connect to the return risers. See reissued sheet for more details.

SHEET M501 MECHANICAL DETAILS

- 3. Wall Fin Detail (Zone Controlled)
  - A. **REVISE** scope shown. See reissued sheet for more details.

VENDOR APPROVALS

SECTION 232113 HYDRONIC PIPING

- 1. Ball Valves
  - A. **ADD** Griswold Controls

SECTION 232133 HYDRONIC SPECIALTIES

- 1. Y Strainers
  - A. **ADD** Griswold Controls

SECTION 265100 INTERIOR LIGHTING

- 2. **ADD** Type WA
- 3. **ADD** Type FB: McGraw-Edison
- 4. **ADD** Type FC: Lithonia, Lumark
- 5. **ADD** Type WA: Oxygen, Brownlee

ATTACHMENTS

- SECTION 232113 HYDRONIC PIPING... (8.5 x 11)
- SHEET MD200 GROUND FLOOR MECHANICAL DEMOLITION PLAN... (30 x 42)
- SHEET MD201 FIRST FLOOR MECHANICAL DEMOLITION PLAN... (30 x 42)
- SHEET MD202 SECOND FLOOR MECHANICAL DEMOLITION PLAN... (30 x 42)
- SHEET M200 GROUND FLOOR MECHANICAL PLAN... (30 x 42)
- SHEET M201 FIRST FLOOR MECHANICAL PLAN... (30 x 42)
- SHEET M202 SECOND FLOOR MECHANICAL PLAN... (30 x 42)
- SHEET M501 MECHANICAL DETAILS... (30 x 42)
- TOTAL PAGES... 15



**SECTION 232113**  
**HYDRONIC PIPING (ADDENDUM #3)**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. Heating water piping
- B. Hydronic Piping (Press Fittings)
- C. Unions, flanges, and couplings
- D. Ball valves (2" and Smaller)

**1.02 RELATED SECTIONS**

- A. Specification Section 23 0719 - HVAC Piping Insulation
- B. Specification Section 23 2500 - HVAC Water Treatment

**1.03 REFERENCES**

- A. ASME - Boiler and Pressure Vessel Codes, SEC 9 - Qualification Standard for Welding and Brazing Procedures, Welders, Brazers, and Welding and Braising Operators
- B. ASME B16.3 - Malleable Iron Threaded Fittings Class 150 and 300
- C. ASME B16.9 - Butt Welded Fittings
- D. ASME B16.18 - Cast Copper Alloy Solder Joint Pressure Fittings
- E. ASME B16.22 - Wrought Copper and Copper Alloy Solder Joint Pressure Fittings
- F. ASME B31.9 - Building Services Piping
- G. ASTM A53 - Pipe, Steel, Black and Hot-Dipped, Zinc Coated Welded and Seamless
- H. ASTM A234 - Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and Elevated Temperatures
- I. ASTM A420 Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Low-Temperature Service
- J. ASTM B32 - Solder Metal
- K. ASTM B88 - Seamless Copper Water Tube
- L. ASTM F708 - Design and Installation of Rigid Pipe Hangers
- M. AWS A5.8 - Brazing Filler Metal
- N. AWS D1.1 - Structural Welding Code

**1.04 SUBMITTALS**

- A. Product Data: Include data on pipe materials, pipe fittings, valves, and accessories. Provide manufacturers catalog information. Indicate valve data and ratings.
- B. Provide schedule of all system types and piping and fitting types provided, clearly indicating which submitted piping and fittings are associated to each system on the project. Schedule shall be at the beginning of piping submittal
- C. Welder's Certificate: Include Welder's Certification of Compliance with ASME Section IX.
- D. Manufacturer's Installation Instructions: Indicate hanging and support methods, joining procedures.

**1.05 PROJECT RECORD DOCUMENTS**

- A. Record actual locations of valves.

**1.06 OPERATION AND MAINTENANCE DATA**

- A. Maintenance Data: Include installation instructions, spare parts lists, exploded assembly views.



### 1.07 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three years experience.
- B. Installer: Company specializing in performing the work of this section with minimum three years experience.
- C. Welders: Certify in accordance with ASME Section IX.

### 1.08 REGULATORY REQUIREMENTS

- A. Conform to ASME B31.9 code for installation of piping system.
- B. Welding Materials and Procedures: Conform to ASME SEC 9 and applicable state labor regulations.
- C. Provide certificate of compliance from authority having jurisdiction indicating approval of welders.

### 1.09 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store, protect and handle products to site.
- B. Accept valves on site in shipping containers with labeling in place. Inspect for damage.
- C. Provide temporary protective coating on cast iron and steel valves.
- D. Provide temporary end caps and closures on piping and fittings. Maintain in place until installation.
- E. Protect piping systems from entry of foreign materials by temporary covers, completing sections of the work and isolating parts of completed system.
- F. Protect plastic piping materials from degradation due to ultraviolet (UV) light exposure. Where plastic piping materials are stored in a location that receives direct sunlight, provide protective coverings to shield materials UV light exposure.

## PART 2 PRODUCTS

### 2.01 HEATING WATER AND GLYCOL PIPING (ABOVE GROUND)

- A. Steel Pipe: ASTM A53, SCH 40/STD WT. Grade B, Black.
  - 1. Fittings:
    - a. Threaded: ASME B16.3, 150 PSI Malleable Iron
    - b. Weld: ASME B16.9 or ASTM A234 Forged Steel Welding Type
    - c. Flanges: Class 125 and 250, Cast Iron or Forged Steel Fittings
  - 2. Joints:
    - a. Two Inch (2") and Under: Threaded
    - b. Over Two Inches (2"): Welded
- B. Copper Tubing: ASTM B88, type #L, hard drawn.
  - 1. Fittings: ASME B16.18 cast brass or ASME B16.22 solder wrought copper.
  - 2. Tee Connections: Mechanically extracted collars with notched and dimpled branch tube.
  - 3. Joints:
    - a. Solder, lead free, 95-5 tin antimony or tin and silver with melting range 430 deg F to 535 deg F.
    - b. Press Fittings: See "Press Fitting" sub-section.

### 2.02 HYDRONIC PIPING (PRESS FITTINGS)

- A. Manufacturers:
  - 1. Viega (ProPress)
  - 2. Nibco (Press)
  - 3. Engineer approved equal.
- B. Material:
  - 1. Steel Pipe:
    - a. Copper Tubing: ASTM B88, type L, hard drawn.



- b. Fittings: Cold press mechanical joint fittings conforming to material requirements of ASME B16.51 and performance criteria of IAPMO PS117. Sealing elements for press fittings shall be EPDM. Sealing elements shall be factory installed and of the same manufacturer.
- C. Application:
- 1. Press fittings used in hydronic piping systems shall be limited in use to systems where levels of ethylene/propylene glycol is less than or equal to 50% by volume, and where piping is installed in accessible locations.
  - 2. Press fittings are not approved for installation in chases, above inaccessible ceilings, or below grade.
  - 3. All piping, fittings, and accessories using cold press mechanical joints shall comply with IAPMO PS117 and any other applicable local codes.
  - 4. Authority Having Jurisdiction may have more strict requirements for press fitting usage in hydronic applications. Contractor shall confirm requirements of local authority prior to submitting press fittings for review and include any additional requirements as notes/comments in hydronic piping submittal.

## **2.03 UNIONS, FLANGES AND COUPLINGS**

- A. Dielectric Nipples:
- 1. Required for all dissimilar metal pipe joints.
  - 2. Joints: Threaded, Flanged, or Grooved
  - 3. Fittings: Dielectric Nipple – Copper Silicone Casting conforming to UNS C87850. The fitting must have a minimum end to end length of:
    - a. 3 inches (1/2 to 3/4 inch IPS/CTS Pipe)
    - b. 4 inches (1 to 2 inch IPS/CT)
    - c. 6 inches (2-1/2 to 4 inch IPS/CTS Pipe)

## **2.04 BALL VALVES (2" AND SMALLER)**

- A. Manufacturers:
- 1. Apollo #77-140
  - 2. Watts #LFB6080G2-SS
  - 3. Nibco #T-585-70-66
  - 4. Milwaukee #BA-400S3
  - 5. Engineer approved equal.
- B. Bronze two piece full port body, stainless steel ball and stem, RPTFE seats and thrust washer, lever handle, threaded ends.
- C. Pressed Copper System Ball Valves Up to and Including 2 inches:
- 1. Manufacturers:
    - a. Apollo #77W
    - b. Nibco #PF-585-70
    - c. Milwaukee #BA-400 P2
    - d. Engineer approved equal.
  - 2. Bronze two piece full port body, stainless steel ball and stem, RPTFE seats and stuffing box ring, lever handle, press ends.

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A. Ream pipe and tube ends. Remove burrs. Bevel plain end ferrous pipe.
- B. Remove scale and dirt on inside and outside before assembly.
- C. Prepare piping connections to equipment with flanges or unions.
- D. Keep open ends of pipe free from scale and dirt. Protect open ends with temporary plugs or caps.
- E. After completion fill, clean, and treat systems.

### 3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install heating water, glycol, chilled water piping to ASME B31.9.
- C. Route piping in orderly manner, parallel to building structure and maintain gradient.
- D. Install piping to conserve building space and not interfere with use of space.
- E. Group piping, whenever practical, at common elevations.
- F. Sleeve pipe passing through partitions, walls, and floors.
- G. Install piping to allow for expansion and contraction without stressing pipe, joints or connected equipment.
- H. Install rigid hydronic piping free of sags or bends.
- I. Provide clearance in hangers and from structure and other equipment for installation of insulation and access to valves and fittings.
- J. Provide access where valves and fittings are not accessible. Coordinate size and location of access doors.
- K. Slope piping and arrange systems to drain using 3/4" ball valve with standard hose thread connection at low points. Use eccentric reducers to maintain top of pipe level.
- L. Where pipe support members are welded to structural building framing; scrape, brush clean, and apply one coat of zinc rich primer to welds.
- M. Prepare unfinished pipe, fittings, supports, and accessories for finish painting.
- N. Install valves with stems upright or horizontal. Not inverted.
- O. Wire welding is not permitted.
- P. Caulking or salting of joints is not permitted.
- Q. Where more than one piping system material is specified, ensure system components are compatible and joined to ensure the integrity of the system is not jeopardized. Provide necessary joining fittings. Ensure that flanges, union, and couplings for servicing are consistently provided.
- R. Use unions, flanges, and couplings downstream of valves and at equipment or apparatus connections. Do not use direct welded or threaded connections to valves, equipment or other apparatus.
- S. Use non-conducting dielectric connections whenever jointing dissimilar metals in open systems.
- T. Provide pipe hangers and supports in accordance with ASTM B31.9 unless indicated otherwise.
- U. Use ball or butterfly valves for shut-off and to isolate equipment, part of systems or vertical risers.
- V. Use 3/4 inch ball valves with cap for drains at main shut-off valves, low points of piping, bases of vertical risers, and at equipment. Pipe to nearest floor drain.

### 3.03 PIPE JOINT CONSTRUCTION

- A. Ream/remove burrs from plain ends of pipe. Prepare pipe with a beveled end prior to welding.
- B. Remove Scale, slag and debris from inside and outside of pipe and fittings prior to assembly.
- C. Soldered Joints: Construct joints according to ASTM B828. Apply ASTM B813 water-flushable flux, unless otherwise indicated. Install using lead-free solder complying with ASTM B32
- D. Threaded Joints: Thread Pipe with tapered pipe threads according to ASME B1.20.1. Ream Pipe ends to remove burrs and restore full ID. Apply appropriate tape or thread compound to external pipe threads
- E. Welded Joints: Construct joints according to AWS D10.12/D10.12M



F. Flanged Joints: Class 125 and 250, Cast Iron or Forged Steel Fittings

**END OF SECTION 232113**







1 GROUND FLOOR MECHANICAL PIPING DEMOLITION PLAN  
1/8" = 1'-0"

**DEMOLITION GENERAL NOTES:**

- A. DEMOLITION DRAWINGS ARE BASED ON EXISTING AVAILABLE DRAWINGS AND CASUAL FIELD OBSERVATION. MECHANICAL AND ELECTRICAL CONTRACTORS SHALL FIELD VERIFY THE SITE AND INCLUDE ALL REQUIRED DEMOLITION IN THE BID.
- B. ALL REQUIRED DEMOLITION IS NOT INDICATED. IT IS THE INTENT OF THESE DOCUMENTS THAT ALL MECHANICAL AND ELECTRICAL SYSTEMS (NOT TO BE REUSED OR EXTENDED) BE REMOVED. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- C. REFER TO SPECIFICATIONS AND OTHER SHEETS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
- D. REMOVE ALL ELECTRICAL CONNECTIONS, WIRING, AND CONDUIT SERVING ALL MECHANICAL EQUIPMENT TO BE REMOVED.
- E. MAINTAIN FIRE RATINGS OF AFFECTED WALLS AND FLOORS.
- F. EXISTING MECHANICAL AND ELECTRICAL SYSTEMS LOCATED IN WALLS AND CHASES NOT BEING REMOVED OR REUSED FOR NEW SYSTEMS MAY BE ABANDONED IN PLACE. CAP AT MAINS OR IN A CONCEALED LOCATION IF REQUIRED.
- G. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS ON FLOOR CUTTING AND CEILING REMOVAL. CONTRACTOR SHALL COORDINATE WORK TO BE CONSISTENT WITH SCOPE OF GENERAL CONTRACTOR'S DEMOLITION.

**DEMOLITION REFERENCED NOTES:** (1)

(NOT ALL NOTES MAY BE USED ON THIS SHEET)

- 1. REMOVE EXISTING VAV BOX, ASSOCIATED CONTROLS, AND THERMOSTAT. DUCTWORK SHALL BE REMOVED ONLY AS SHOWN.
- 2. REMOVE AND LAWFULLY DISPOSE OF EXISTING FIN-TUBE HEATER AND ASSOCIATED PIPING BACK TO ISOLATION VALVES. PROVIDE NEW FIN-TUBE AS SHOWN ON NEW WORK MECHANICAL PLANS.
- 3. REMOVE EXISTING CONTROL VALVE. MODIFY PIPING AS NECESSARY TO REPLACE THE VALVE AS SHOWN ON MECHANICAL PLANS.
- 4. PATCH AND REPAIR HOLE IN WALL LEFT BEHIND BY DEMOLISHED FIN TUBE. EXTEND WALL TRIM TO CORNER AND PAINT WALL TO MATCH EXISTING.
- 5. REMOVE AND LAWFULLY DISPOSE OF EXISTING LOUVER. LOUVER SHALL NOT BE REMOVED UNTIL EXTERIOR WALL SYSTEM IS ABOUT TO BE REMOVED. PROTECT OPENING WITH BIRDSCREEN UNTIL NEW LOUVER CAN BE INSTALLED WITH NEW CURTAIN WALL SYSTEM. COORDINATE WORK WITH GENERAL CONTRACTOR. COORDINATE SHUTDOWN OF ASSOCIATED HVAC EQUIPMENT WITH OWNER PRIOR TO COMMENCING ON WORK.
- 6. REMOVE EXISTING LOUVER. REMOVE DUCTWORK CONNECTION TO THE LOUVER AND PERMANENTLY CAP THE DUCT.
- 7. REMOVE SECTION OF DUCTWORK. RETAIN CONNECTED BRANCH DUCTWORK TO THE GREATEST EXTENT PRACTICABLE.
- 8. REMOVE EXISTING ZONE CONTROL DAMPER AND ASSOCIATED CONTROLS. ASSOCIATED DUCTWORK SHALL BE REMOVED AS SHOWN.
- 9. **BASE BID:** REMOVE DIFFUSERS IN THIS SPACE AS SHOWN AND THEIR ASSOCIATED FLEX DUCTS. **DUCT ALTERNATE #1:** THIS SCOPE OF WORK SHALL NOT BE PERFORMED.
- 10. REMOVE CONTROLS FROM EXISTING VAV BOX, THERMOSTAT, AND ASSOCIATED WIRING. REMOVE CONTROL VALVE AND ASSOCIATED ACTUATOR. VAV BOX SHALL BE EXISTING TO REMAIN. REMOVE VAV BOX'S INTERNAL FLOW SENSOR.
- 11. REMOVE EXISTING FIRE ALARM STROBE AND FIRE DEPARTMENT CONNECTION FROM ABANDONED SPRINKLER SYSTEM. CAP THE FDC LINE INSIDE THE BUILDING.
- 12. REMOVE EXISTING CABINET UNIT HEATER AND ALL ASSOCIATED POWER AND CONTROLS.
- 13. **BEFORE DEMOLITION BEGINS:** PERFORM PRETAB MEASUREMENTS ON THIS DIFFUSER REGARDING THE LOCATION AND AIRFLOW.
- 14. HOT WATER SUPPLY AND RETURN RISERS ARE TO REMAIN UNALTERED. REMOVE HORIZONTAL PIPING BETWEEN EXISTING RISER AND FIN TUBES. REFER TO DETAIL ON SHEET 105.

ADD

Client Name  
CLINTON COUNTY

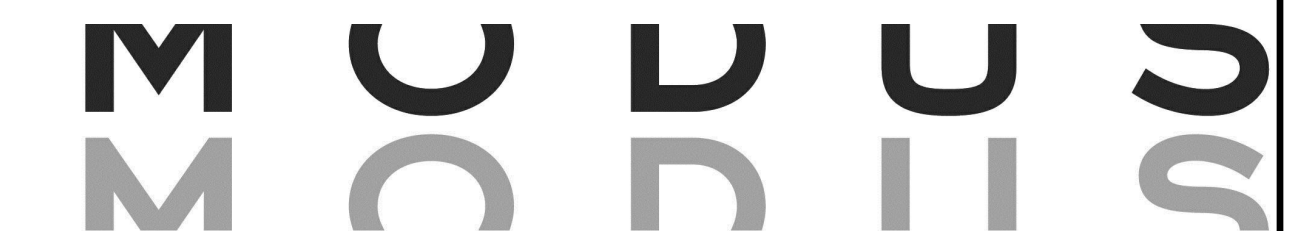
Project Name  
ADMINISTRATION  
BUILDING -  
ADDITION &  
ALTERATIONS

Location / Description  
1900 N. 3RD ST.  
CLINTON, IA 52732

Revisions	APPENDIX #3	Date
2	ADDITIONAL #3	03/05/2024
	Rev Description	22072
	Project Number	22072
	Project Manager	MEM
	Issued for Bidding	02-13-2024
	Issued for Construction	

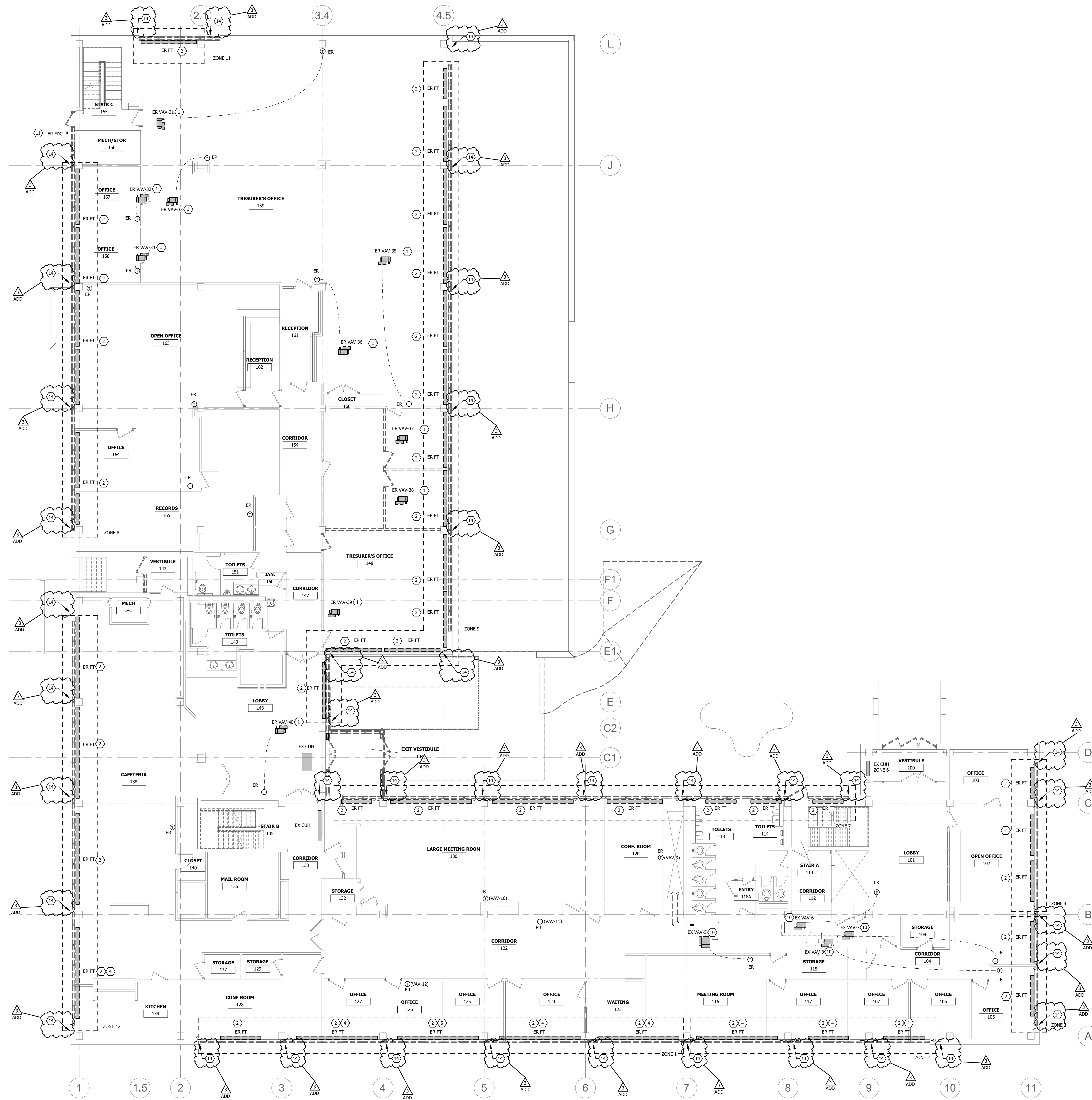
Sheet Title

GROUND FLOOR  
PIPING  
DEMOLITION  
PLAN



WATERLOO | DES MOINES | IOWA CITY  
214 EAST 4TH ST. 130 EAST 3RD ST. 118 EAST COLLEGE ST.  
WATERLOO, IOWA DES MOINES, IOWA IOWA CITY, IOWA  
(319)235-0650 (515)251-7280 (319)248-4600





1 FIRST FLOOR MECHANICAL PIPING DEMOLITION PLAN  
1/8" = 1'-0"

**DEMOLITION GENERAL NOTES:**

- A. DEMOLITION DRAWINGS ARE BASED ON EXISTING AVAILABLE DRAWINGS AND CASUAL FIELD OBSERVATION. MECHANICAL AND ELECTRICAL CONTRACTORS SHALL FIELD VERIFY THE SITE AND INCLUDE ALL REQUIRED DEMOLITION IN THE BID.
- B. ALL REQUIRED DEMOLITION IS NOT INDICATED. IT IS THE INTENT OF THESE DOCUMENTS THAT ALL MECHANICAL AND ELECTRICAL SYSTEMS (NOT TO BE REUSED OR EXTENDED) BE REMOVED. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- C. REFER TO SPECIFICATIONS AND OTHER SHEETS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
- D. REMOVE ALL ELECTRICAL CONNECTIONS, WIRING, AND CONDUIT SERVING ALL MECHANICAL EQUIPMENT TO BE REMOVED.
- E. MAINTAIN FIRE RATINGS OF AFFECTED WALLS AND FLOORS.
- F. EXISTING MECHANICAL AND ELECTRICAL SYSTEMS LOCATED IN WALLS AND CHASES NOT BEING REMOVED OR REUSED FOR NEW SYSTEMS MAY BE ABANDONED IN PLACE. CAP AT MAINS OR IN A CONCEALED LOCATION IF REQUIRED.
- G. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS ON FLOOR CUTTING AND CEILING REMOVAL. CONTRACTOR SHALL COORDINATE CUTTING TO BE CONSISTENT WITH SCOPE OF GENERAL CONTRACTOR'S DEMOLITION.

**DEMOLITION REFERENCED NOTES:** (14)

(NOT ALL NOTES MAY BE USED ON THIS SHEET)

1. REMOVE EXISTING VAV BOX, ASSOCIATED CONTROLS, AND THERMOSTAT. DUCTWORK SHALL BE REMOVED ONLY AS SHOWN.
2. REMOVE AND LAWFULLY DISPOSE OF EXISTING FIN-TUBE HEATER AND ASSOCIATED PIPING BACK TO ISOLATION VALVES. PROVIDE NEW FIN-TUBE AS SHOWN ON NEW WORK MECHANICAL PLANS.
3. REMOVE EXISTING CONTROL VALVE. MODIFY PIPING AS NECESSARY TO REPLACE THE VALVE AS SHOWN ON MECHANICAL PLANS.
4. PATCH AND REPAIR HOLE IN WALL LEFT BEHIND BY DEMOLISHED FIN TUBE. EXTEND WALL TRIM TO CORNER AND PAINT WALL TO MATCH EXISTING.
5. REMOVE AND LAWFULLY DISPOSE OF EXISTING LOUVER. LOUVER SHALL NOT BE REMOVED UNTIL EXTERIOR WALL SYSTEM IS ABOUT TO BE REMOVED. PROTECT OPENING WITH BIRDSCREEN UNTIL NEW LOUVER CAN BE INSTALLED WITH NEW CURTAIN WALL SYSTEM. COORDINATE WORK WITH GENERAL CONTRACTOR. COORDINATE SHUTDOWN OF ASSOCIATED HVAC EQUIPMENT WITH OWNER PRIOR TO COMMENCING ON WORK.
6. REMOVE EXISTING LOUVER. REMOVE DUCTWORK CONNECTION TO THE LOUVER AND PERMANENTLY CAP THE DUCT.
7. REMOVE SECTION OF DUCTWORK. RETAIN CONNECTED BRANCH DUCTWORK TO THE GREATEST EXTENT PRACTICABLE.
8. REMOVE EXISTING ZONE CONTROL DAMPER AND ASSOCIATED CONTROLS. ASSOCIATED DUCTWORK SHALL BE REMOVED AS SHOWN.
9. **BASE BID:** REMOVE DIFFUSERS IN THIS SPACE AS SHOWN AND THEIR ASSOCIATED FLEX DUCTS. **DUCT ALTERNATE #1:** THIS SCOPE OF WORK SHALL NOT BE PERFORMED.
10. REMOVE CONTROLS FROM EXISTING VAV BOX, THERMOSTAT, AND ASSOCIATED WIRING. REMOVE CONTROL VALVE AND ASSOCIATED ACTUATOR. VAV BOX SHALL BE EXISTING TO REMAIN. REMOVE VAV BOX'S INTERNAL FLOW SENSOR.
11. REMOVE EXISTING FIRE ALARM STROBE AND FIRE DEPARTMENT CONNECTION FROM ABANDONED SPRINKLER SYSTEM. CAP THE FDC LINE INSIDE THE BUILDING.
12. REMOVE EXISTING CABINET UNIT HEATER AND ALL ASSOCIATED POWER AND CONTROLS.
13. **BEFORE DEMOLITION BEGINS:** PERFORM PRETAB MEASUREMENTS ON THIS DIFFUSER REGARDING THE LOCATION AND AIRFLOW.
14. HOT WATER SUPPLY AND RETURN RISERS ARE TO REMAIN UNALTERED. REMOVE HORIZONTAL PIPING BETWEEN EXISTING RISER AND FIN TUBES. REFER TO DETAIL ON SHEET 105.

Client Name  
CLINTON COUNTY

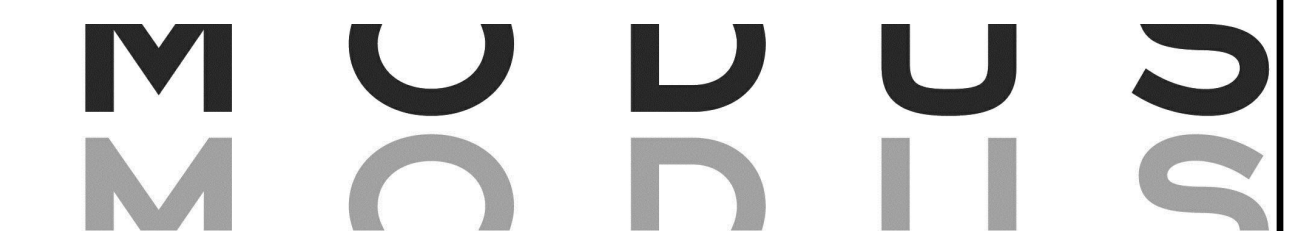
Project Name  
ADMINISTRATION  
BUILDING -  
ADDITION &  
ALTERATIONS

Location / Description  
1900 N. 3RD ST.  
CLINTON, IA 52732

Revisions	APPENDIX #3	Date
2	03/05/2024	02-13-2024
Rev Description	Project Number	Issued for Bidding
	22072	MEM
		Issued for Construction

Approved: [Signature] 3/5/2024 11:54:44 AM  
All numbers based on 20x12 1/4 sheet size.

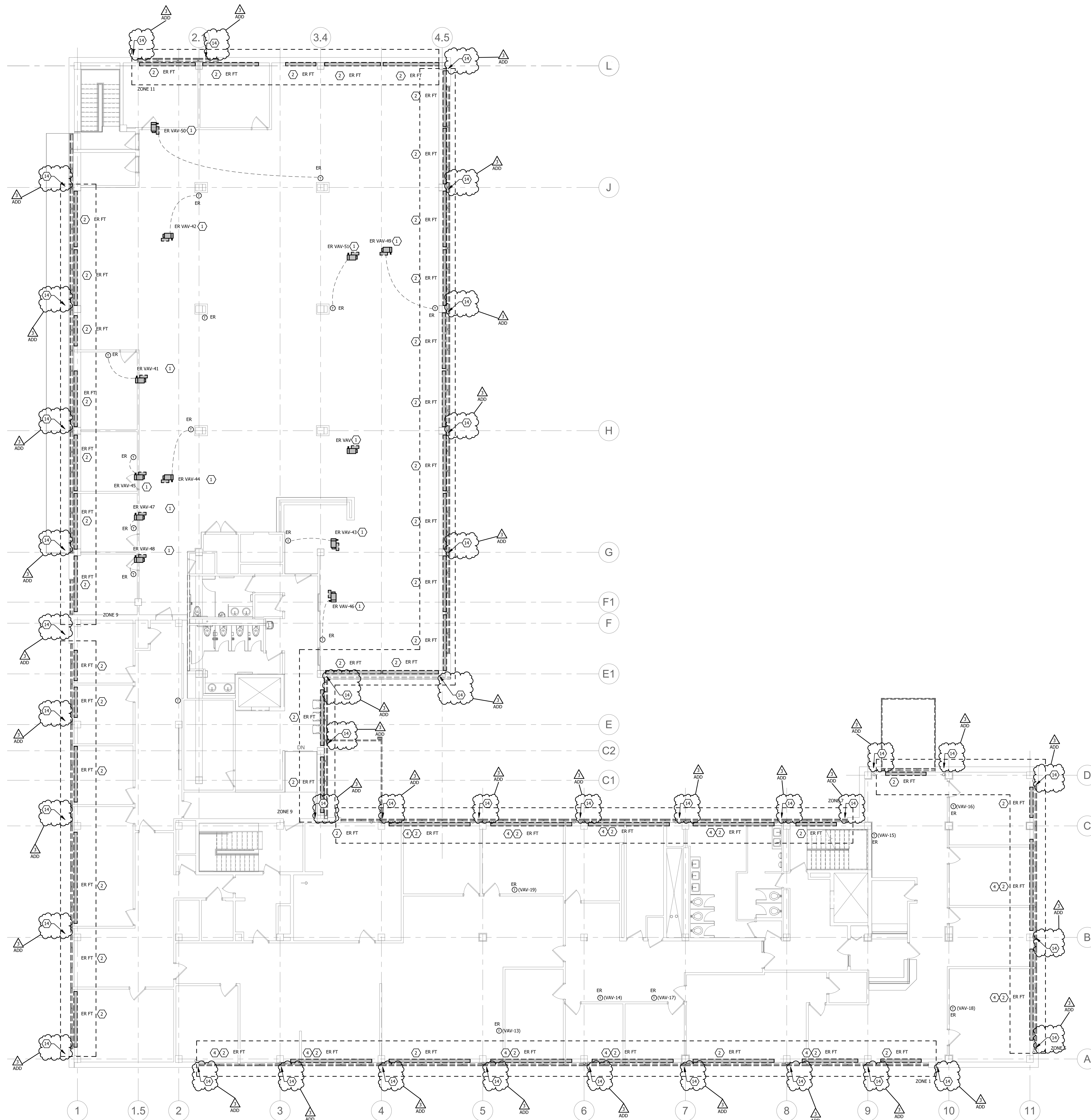
Sheet Title  
**FIRST FLOOR  
PIPING  
DEMOLITION  
PLAN**



WATERLOO | DES MOINES | IOWA CITY  
214 EAST 4TH ST. | 130 EAST 3RD ST. | 118 EAST COLLEGE ST.  
WATERLOO, IOWA | DES MOINES, IOWA | IOWA CITY, IOWA  
(319)235-0650 | (515)251-7280 | (319)248-4600

**MD201**





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

**DEMOLITION GENERAL NOTES:**

- A. DEMOLITION DRAWINGS ARE BASED ON EXISTING AVAILABLE DRAWINGS AND CASUAL FIELD OBSERVATION. MECHANICAL AND ELECTRICAL CONTRACTORS SHALL FIELD VERIFY THE SITE AND INCLUDE ALL REQUIRED DEMOLITION IN THE BID.
- B. ALL REQUIRED DEMOLITION IS NOT INDICATED. IT IS THE INTENT OF THESE DOCUMENTS THAT ALL MECHANICAL AND ELECTRICAL SYSTEMS (NOT TO BE REUSED OR EXTENDED) BE REMOVED. COORDINATE WITH ARCHITECTURAL DRAWINGS.
- C. REFER TO SPECIFICATIONS AND OTHER SHEETS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
- D. REMOVE ALL ELECTRICAL CONNECTIONS, WIRING, AND CONDUIT SERVING ALL MECHANICAL EQUIPMENT TO BE REMOVED.
- E. MAINTAIN FIRE RATINGS OF AFFECTED WALLS AND FLOORS.
- F. EXISTING MECHANICAL AND ELECTRICAL SYSTEMS LOCATED IN WALLS AND CHASES NOT BEING REMOVED OR REUSED FOR NEW SYSTEMS MAY BE ABANDONED IN PLACE. CAP AT MAINS OR IN A CONCEALED LOCATION IF REQUIRED.
- G. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS ON FLOOR CUTTING AND CEILING REMOVAL. CONTRACTOR SHALL COORDINATE WORK TO BE CONSISTENT WITH SCOPE OF GENERAL CONTRACTOR'S DEMOLITION.

**DEMOLITION REFERENCED NOTES:** (1)

(NOT ALL NOTES MAY BE USED ON THIS SHEET)

- 1. REMOVE EXISTING VAV BOX, ASSOCIATED CONTROLS, AND THERMOSTAT. DUCTWORK SHALL BE REMOVED ONLY AS SHOWN.
- 2. REMOVE AND LAWFULLY DISPOSE OF EXISTING FIN-TUBE HEATER AND ASSOCIATED PIPING BACK TO ISOLATION VALVES. PROVIDE NEW FIN-TUBE AS SHOWN ON NEW WORK MECHANICAL PLANS.
- 3. REMOVE EXISTING CONTROL VALVE. MODIFY PIPING AS NECESSARY TO REPLACE THE VALVE AS SHOWN ON MECHANICAL PLANS.
- 4. PATCH AND REPAIR HOLE IN WALL LEFT BEHIND BY DEMOLISHED FIN TUBE. EXTEND WALL TRIM TO CORNER AND PAINT WALL TO MATCH EXISTING.
- 5. REMOVE AND LAWFULLY DISPOSE OF EXISTING LOUVER. LOUVER SHALL NOT BE REMOVED UNTIL EXTERIOR WALL SYSTEM IS ABOUT TO BE REMOVED. PROTECT OPENING WITH BIRDSCREEN UNTIL NEW LOUVER CAN BE INSTALLED WITH NEW CURTAIN WALL SYSTEM. COORDINATE WORK WITH GENERAL CONTRACTOR. COORDINATE SHUTDOWN OF ASSOCIATED HVAC EQUIPMENT WITH OWNER PRIOR TO COMMENCING ON WORK.
- 6. REMOVE EXISTING LOUVER. REMOVE DUCTWORK CONNECTION TO THE LOUVER AND PERMANENTLY CAP THE DUCT.
- 7. REMOVE SECTION OF DUCTWORK. RETAIN CONNECTED BRANCH DUCTWORK TO THE GREATEST EXTENT PRACTICABLE.
- 8. REMOVE EXISTING ZONE CONTROL DAMPER AND ASSOCIATED CONTROLS. ASSOCIATED DUCTWORK SHALL BE REMOVED AS SHOWN.
- 9. **BASE BID:** REMOVE DIFFUSERS IN THIS SPACE AS SHOWN AND THEIR ASSOCIATED FLEX DUCTS. **DUCT ALTERNATE #1:** THIS SCOPE OF WORK SHALL NOT BE PERFORMED.
- 10. REMOVE CONTROLS FROM EXISTING VAV BOX, THERMOSTAT, AND ASSOCIATED WIRING. REMOVE CONTROL VALVE AND ASSOCIATED ACTUATOR. VAV BOX SHALL BE EXISTING TO REMAIN. REMOVE VAV BOX'S INTERNAL FLOW SENSOR.
- 11. REMOVE EXISTING FIRE ALARM STROBE AND FIRE DEPARTMENT CONNECTION FROM ABANDONED SPRINKLER SYSTEM. CAP THE FDC LINE INSIDE THE BUILDING.
- 12. REMOVE EXISTING CABINET UNIT HEATER AND ALL ASSOCIATED POWER AND CONTROLS.
- 13. **BEFORE DEMOLITION BEGINS:** PERFORM PRETAB MEASUREMENTS ON THIS DIFFUSER REGARDING THE LOCATION AND AIRFLOW.
- 14. HOT WATER SUPPLY AND RETURN RISERS ARE TO REMAIN UNALTERED. REMOVE HORIZONTAL PIPING BETWEEN EXISTING RISER AND FIN TUBES. REFER TO DETAIL ON SHEET 1001.

Client Name  
CLINTON COUNTY

Project Name  
ADMINISTRATION  
BUILDING -  
ADDITION &  
ALTERATIONS

Location / Description  
1900 N. 3RD ST.  
CLINTON, IA 52732

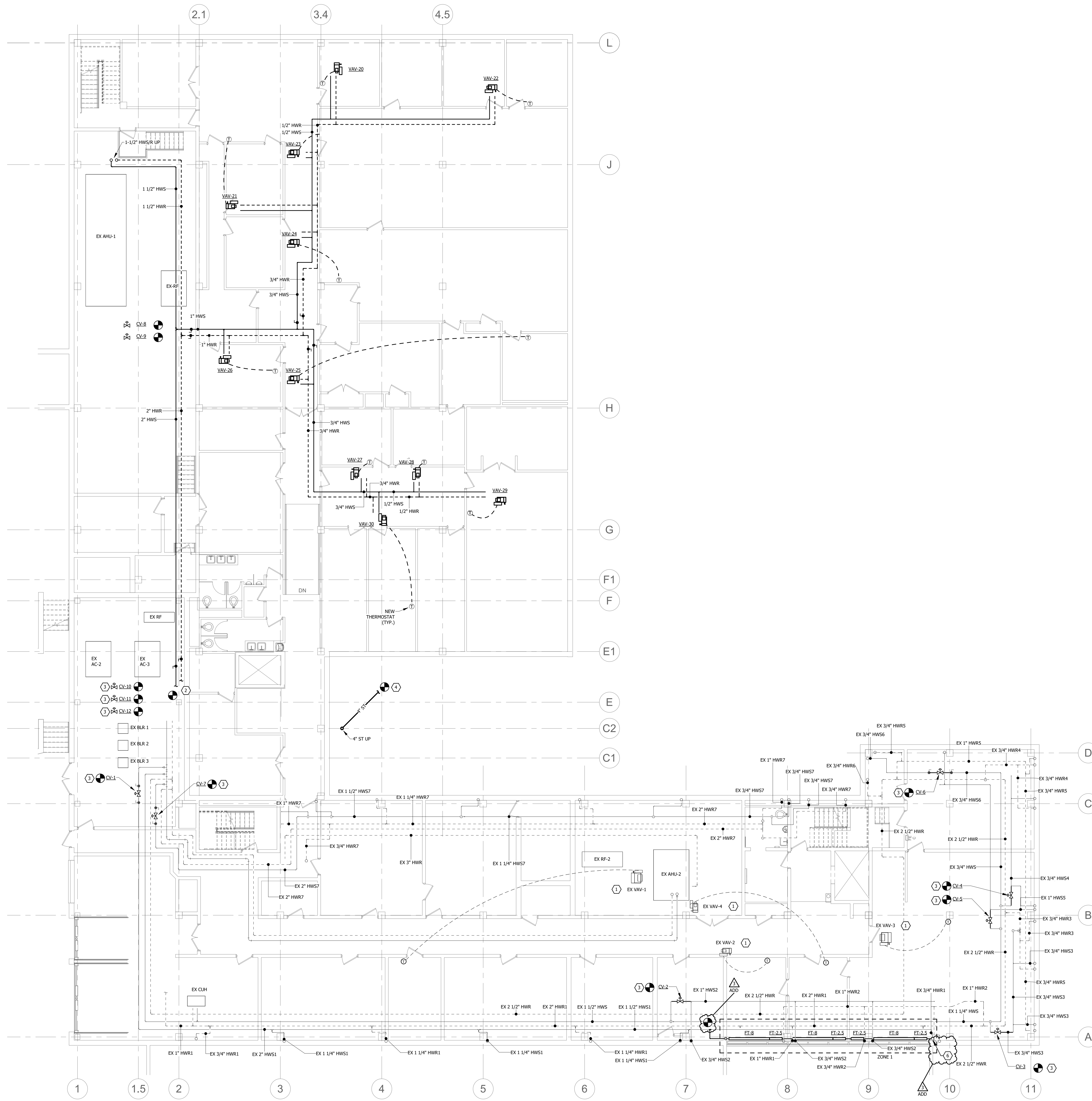
Revisions	ADDITION #	Date
2	ADDITION #3	03/05/2024
	Rev Description	02-13-2024
	Project Number	22072
	Project Manager	MEM
	Issued for Bidding	
	Issued for Construction	

Sheet Title  
**SECOND FLOOR  
MECHANICAL  
DEMOLITION  
PLAN**



WATERLOO | DES MOINES | IOWA CITY  
214 EAST 4TH ST. 130 EAST 3RD ST. 118 EAST COLLEGE ST.  
WATERLOO, IOWA DES MOINES, IOWA IOWA CITY, IOWA  
(319)235-0650 (515)251-7280 (319)248-4600

**MD202**



1 GROUND FLOOR MECHANICAL PIPING PLAN  
1/8" = 1'-0"

**GENERAL MECHANICAL PIPING NOTES:**

- A. LAYOUT AND ROUTING SHOWN IS DIAGRAMMATIC AND SCHEMATIC IN NATURE. NOT ALL OFFSETS MAY BE SHOWN. CONTRACTOR SHALL VERIFY EXACT ROUTING REQUIRED AND NUMBER OF OFFSETS AND TRANSITIONS.
- B. MAINTAIN SERVICE CLEARANCE IN FRONT OF AND ABOVE ELECTRICAL EQUIPMENT AND ACCESS ZONES. REFER TO ELECTRICAL EQUIPMENT INSTALLATION AND INSTRUCTIONS. DO NOT INSTALL PIPING IN CLEARANCE SPACE OF ELECTRICAL OR MECHANICAL EQUIPMENT.
- C. COORDINATE ALL PIPING ROUTING WITH BUILDING STRUCTURE AND OTHER TRADES PRIOR TO INSTALLATION TO ALLOW FOR PROPER CLEARANCES AND FLOW REQUIREMENTS.
- D. PROVIDE ISOLATION BALL VALVES ON BRANCH PIPING TAPS FROM MAIN ON ALL SUPPLY AND RETURN PIPES. ENSURE VALVES ARE INSTALLED IN ACCESSIBLE LOCATIONS.
- E. VERIFY ALL SITE CONDITIONS PRIOR TO START OF WORK. FIELD VERIFY ALL NEW AND EXISTING PIPE ROUTING WITH EXISTING CONDITIONS PRIOR TO ROUGH-IN. MAKE NECESSARY OFFSETS AS REQUIRED.
- F. COORDINATE ALL EXPOSED PIPE ROUTING WITH DESIGN TEAM PRIOR TO ROUGH-IN. SPECIFIC RACKING REQUIREMENTS MAY BE REQUIRED. PROVIDE JACKETING ON EXPOSED PIPING UNLESS OTHERWISE NOTED.
- G. ALL CONDENSATE DRAIN PIPING SHALL BE 3/4" WITH INSULATION UNLESS NOTED OTHERWISE.

**REFERENCED MECHANICAL PIPING NOTES:**

(NOT ALL NOTES MAY BE USED ON THIS SHEET)

1. PROVIDE NEW CONTROLS FOR VAV BOX INCLUDING NEW CONTROL VALVE, ACTUATOR, THERMOSTAT, AND ALL ASSOCIATED WIRING.
2. TIE NEW HEATING WATER SUPPLY AND RETURN MAINS INTO EXISTING MAINS IN BOILER ROOM UPSTREAM OF ALL CONTROL VALVES.
3. PROVIDE NEW CONTROL VALVE.
4. CONNECT TO EXISTING SITE STORM LINE. REFER TO CIVIL SHEETS FOR MORE INFORMATION.
5. CONNECT ADJACENT FIN TUBE RUNS TO EXISTING HOT WATER SUPPLY RISER. SEE DETAIL ON SHEET M501.
6. CONNECT FIN TUBE RUN TO EXISTING HOT WATER RETURN RISER. PROVIDE AND INSTALL ONE (1) SET OF HYDRONIC SPECIALTIES IN LAST FIN TUBE ENCLOSURE BEFORE RISER. SEE DETAIL ON SHEET M501.

Client Name  
CLINTON COUNTY

Project Name  
ADMINISTRATION  
BUILDING -  
ADDITION &  
ALTERATIONS

Location / Description  
1900 N. 3RD ST.  
CLINTON, IA 52732

Revisions	APPENDIX #3	03/05/2024
2	Rev Description	Date
	Project Number: 22072	02-13-2024
	Project Manager: MEM	Issued for Bidding
		Issued for Construction

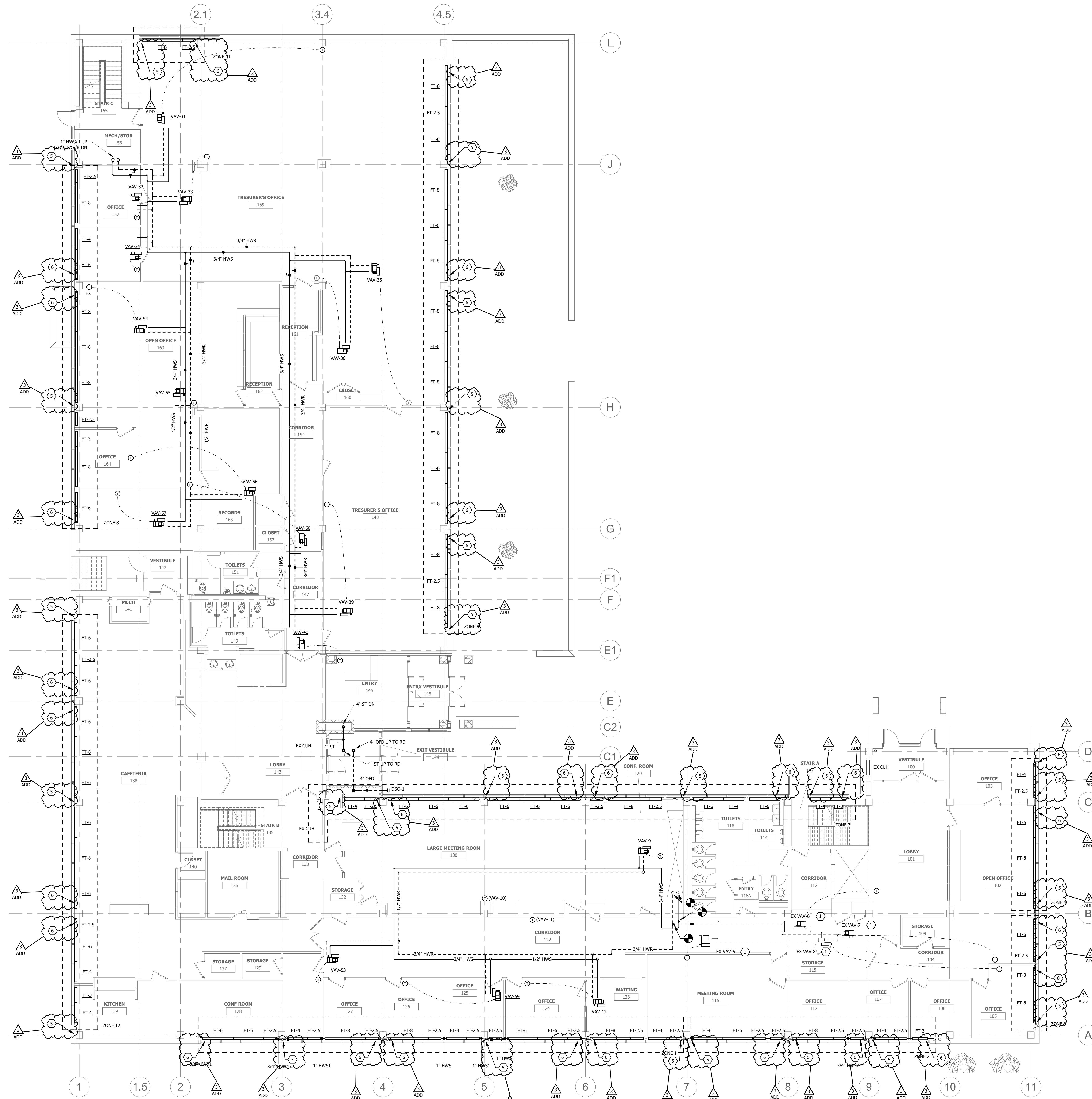
Sheet Title

**GROUND FLOOR  
MECHANICAL  
PIPING PLAN**

**M200**

**M O D U S**  
WATERLOO | DES MOINES | IOWA CITY  
214 EAST 4TH ST. 130 EAST 3RD ST. 118 EAST COLLEGE ST.  
WATERLOO, IOWA DES MOINES, IOWA IOWA CITY, IOWA  
(319)235-0650 (515)251-7280 (319)248-4600





1 FIRST FLOOR MECHANICAL PIPING PLAN  
1/8" = 1'-0"

**GENERAL MECHANICAL PIPING NOTES:**

- A. LAYOUT AND ROUTING SHOWN IS DIAGNAMATIC AND SCHEMATIC IN NATURE. NOT ALL OFFSETS MAY BE SHOWN. CONTRACTOR SHALL VERIFY EXACT ROUTING REQUIRED AND NUMBER OF OFFSETS AND TRANSITIONS.
- B. MAINTAIN SERVICE CLEARANCE IN FRONT OF AND ABOVE ELECTRICAL EQUIPMENT AND ACCESS ZONES. REFER TO ELECTRICAL EQUIPMENT INSTALLATION AND INSTRUCTIONS. DO NOT INSTALL PIPING IN CLEARANCE SPACE OF ELECTRICAL OR MECHANICAL EQUIPMENT.
- C. COORDINATE ALL PIPING ROUTING WITH BUILDING STRUCTURE AND OTHER TRADES PRIOR TO INSTALLATION TO ALLOW FOR PROPER CLEARANCES AND FLOW REQUIREMENTS.
- D. PROVIDE ISOLATION BALL VALVES ON BRANCH PIPING TAPS FROM MAIN ON ALL SUPPLY AND RETURN PIPES. ENSURE VALVES ARE INSTALLED IN ACCESSIBLE LOCATIONS.
- E. VERIFY ALL SITE CONDITIONS PRIOR TO START OF WORK. FIELD VERIFY ALL NEW AND EXISTING PIPE ROUTING WITH EXISTING CONDITIONS PRIOR TO ROUGH-IN. MAKE NECESSARY OFFSETS AS REQUIRED.
- F. COORDINATE ALL EXPOSED PIPE ROUTING WITH DESIGN TEAM PRIOR TO ROUGH-IN. SPECIFIC RACKING REQUIREMENTS MAY BE REQUIRED. PROVIDE JACKETING ON EXPOSED PIPING UNLESS OTHERWISE NOTED.
- G. ALL CONDENSATE DRAIN PIPING SHALL BE 3/4" WITH INSULATION UNLESS NOTED OTHERWISE.

**REFERENCED MECHANICAL PIPING NOTES:**

- (NOT ALL NOTES MAY BE USED ON THIS SHEET)
- 1. PROVIDE NEW CONTROLS FOR VAV BOX INCLUDING NEW CONTROL VALVE, ACTUATOR, THERMOSTAT, AND ALL ASSOCIATED WIRING.
  - 2. TIE NEW HEATING WATER SUPPLY AND RETURN MAINS INTO EXISTING MAINS IN BOILER ROOM UPSTREAM OF ALL CONTROL VALVES.
  - 3. PROVIDE NEW CONTROL VALVE.
  - 4. CONNECT TO EXISTING SITE STORM LINE. REFER TO CIVIL SHEETS FOR MORE INFORMATION.
  - 5. CONNECT ADJACENT FIN TUBE RUNS TO EXISTING HOT WATER SUPPLY RISER. SEE DETAIL ON SHEET M501.
  - 6. CONNECT FIN TUBE RUN TO EXISTING HOT WATER RETURN RISER. PROVIDE AND INSTALL ONE (1) SET OF HYDROVIC SPECIALTIES IN LAST FIN TUBE ENCLOSURE BEFORE RISER. SEE DETAIL ON SHEET M501.

Client Name  
CLINTON COUNTY

Project Name  
ADMINISTRATION  
BUILDING -  
ADDITION &  
ALTERATIONS

Location / Description  
1900 N. 3RD ST.  
CLINTON, IA 52732

Revisions	APPENDIX #3	Date
2	ADDITIONAL #3	03/05/2024
	Rev Description	02-13-2024
	Project Number	22072
	Project Manager	MEM
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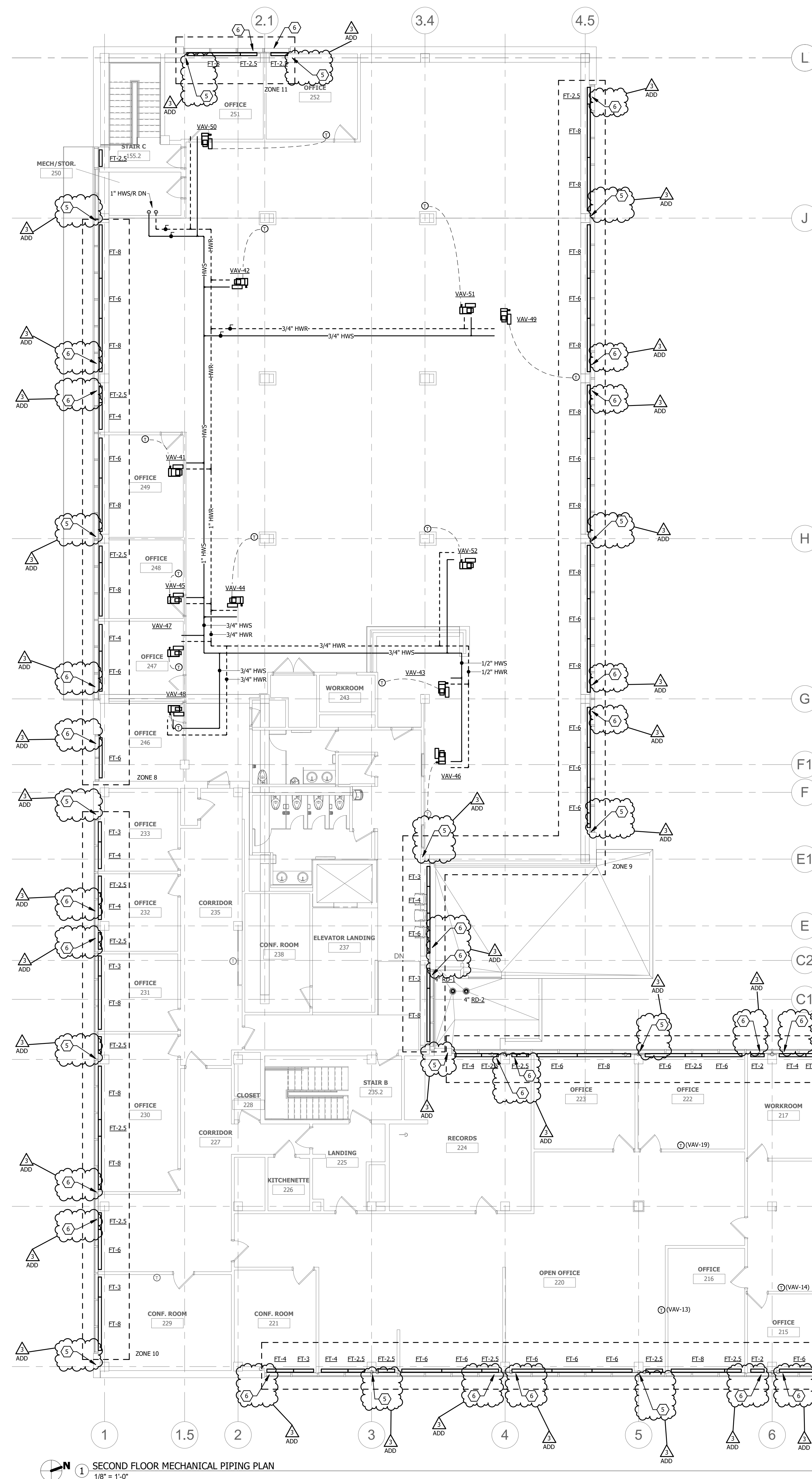
Sheet Title

FIRST FLOOR  
MECHANICAL  
PIPING PLAN

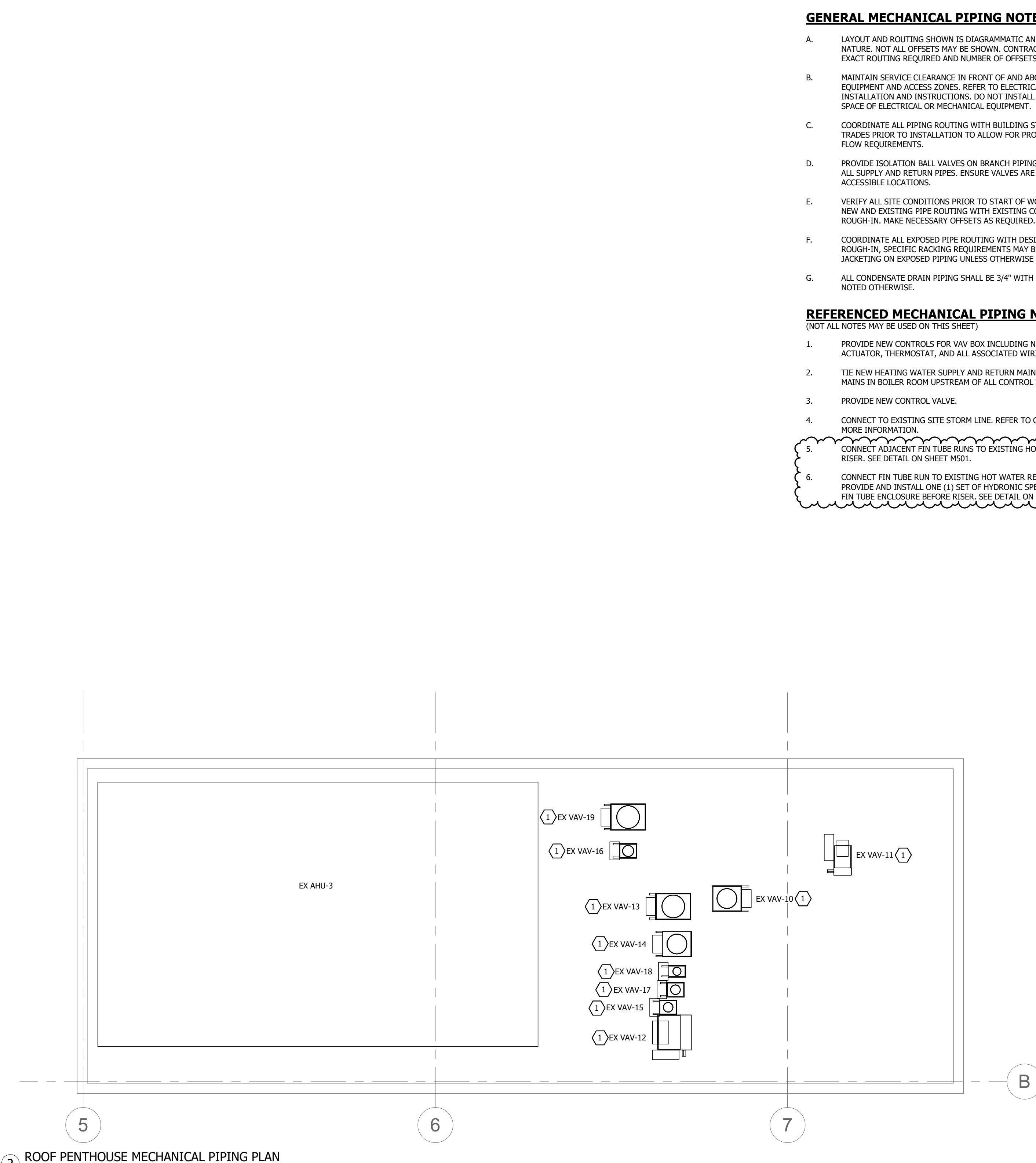


WATERLOO | DES MOINES | IOWA CITY  
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WATERLOO, IOWA DES MOINES, IOWA IOWA CITY, IOWA  
(319)235-0650 (515)251-7280 (319)248-4600

M201



1 SECOND FLOOR MECHANICAL PIPING PLAN  
1/8" = 1'-0"



2 ROOF PENTHOUSE MECHANICAL PIPING PLAN  
1/4" = 1'-0"

- GENERAL MECHANICAL PIPING NOTES:**
- LAYOUT AND ROUTING SHOWN IS DIAGRAMMATIC AND SCHEMATIC IN NATURE. NOT ALL OFFSETS MAY BE SHOWN. CONTRACTOR SHALL VERIFY EXACT ROUTING REQUIRED AND NUMBER OF OFFSETS AND TRANSITIONS.
  - MAINTAIN SERVICE CLEARANCE IN FRONT OF AND ABOVE ELECTRICAL EQUIPMENT AND ACCESS ZONES. REFER TO ELECTRICAL EQUIPMENT INSTALLATION AND INSTRUCTIONS. DO NOT INSTALL PIPING IN CLEARANCE SPACE OF ELECTRICAL OR MECHANICAL EQUIPMENT.
  - COORDINATE ALL PIPING ROUTING WITH BUILDING STRUCTURE AND OTHER TRADES PRIOR TO INSTALLATION TO ALLOW FOR PROPER CLEARANCES AND FLOW REQUIREMENTS.
  - PROVIDE ISOLATION BALL VALVES ON BRANCH PIPING TAPS FROM MAIN ON ALL SUPPLY AND RETURN PIPES. ENSURE VALVES ARE INSTALLED IN ACCESSIBLE LOCATIONS.
  - VERIFY ALL SITE CONDITIONS PRIOR TO START OF WORK. FIELD VERIFY ALL NEW AND EXISTING PIPE ROUTING WITH EXISTING CONDITIONS PRIOR TO ROUGH-IN. MAKE NECESSARY OFFSETS AS REQUIRED.
  - COORDINATE ALL EXPOSED PIPE ROUTING WITH DESIGN TEAM PRIOR TO ROUGH-IN. SPECIFIC RACKING REQUIREMENTS MAY BE REQUIRED. PROVIDE JACKETING ON EXPOSED PIPING UNLESS OTHERWISE NOTED.
  - ALL CONDENSATE DRAIN PIPING SHALL BE 3/4" WITH INSULATION UNLESS NOTED OTHERWISE.
- REFERENCED MECHANICAL PIPING NOTES:**
- (NOT ALL NOTES MAY BE USED ON THIS SHEET)
- PROVIDE NEW CONTROLS FOR VAV BOX INCLUDING NEW CONTROL VALVE, ACTUATOR, THERMOSTAT, AND ALL ASSOCIATED WIRING.
  - TIE NEW HEATING WATER SUPPLY AND RETURN MAINS INTO EXISTING MAINS IN BOILER ROOM UPSTREAM OF ALL CONTROL VALVES.
  - PROVIDE NEW CONTROL VALVE.
  - CONNECT TO EXISTING SITE STORM LINE. REFER TO CIVIL SHEETS FOR MORE INFORMATION.
  - CONNECT ADJACENT FIN TUBE RUNS TO EXISTING HOT WATER SUPPLY RISER. SEE DETAIL ON SHEET M501.
  - CONNECT FIN TUBE RUN TO EXISTING HOT WATER RETURN RISER. PROVIDE AND INSTALL ONE (1) SET OF HYDRONIC SPECIALTIES IN LAST FIN TUBE ENCLOSURE BEFORE RISER. SEE DETAIL ON SHEET M501.

Client Name  
CLINTON COUNTY

Project Name  
ADMINISTRATION  
BUILDING -  
ADDITION &  
ALTERATIONS

Location / Description  
1900 N. 3RD ST.  
CLINTON, IA 52732

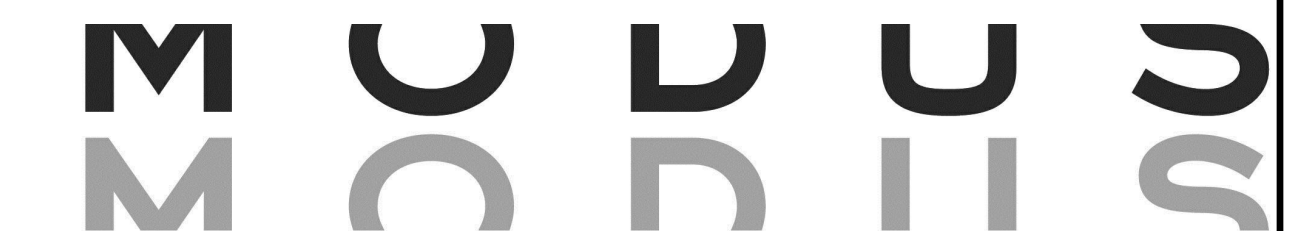
Revisions	APPENDIX #3	03/05/2024	Date
2	Rev Description	22072	02-13-2024
	Project Number	22072	Issued for Bidding
	Project Manager	MEM	Issued for Construction

Approved: Chris 02/20/24  
Checked: Chris 02/20/24  
All numbers based on: 20/24, 1/8, 1/4, 1/2, 3/4, 1, 1 1/2, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Sheet Title

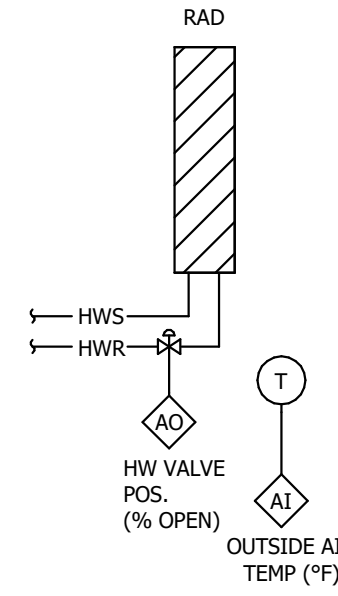
SECOND FLOOR  
MECHANICAL  
PIPING PLAN

M202



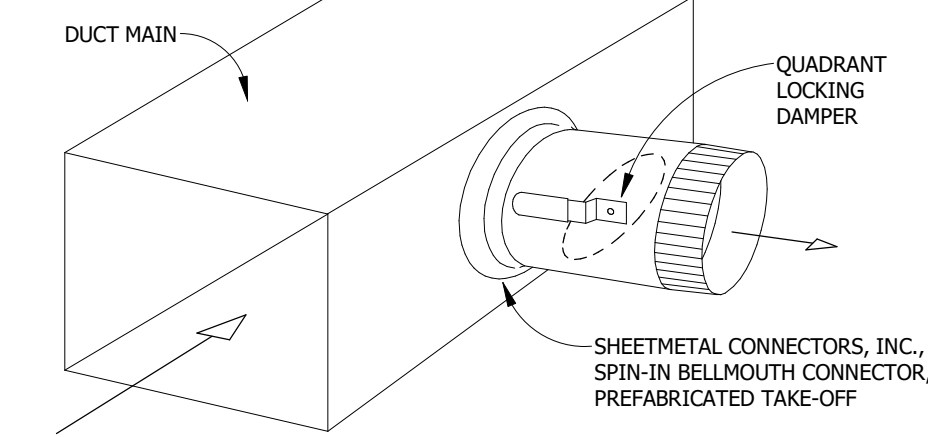
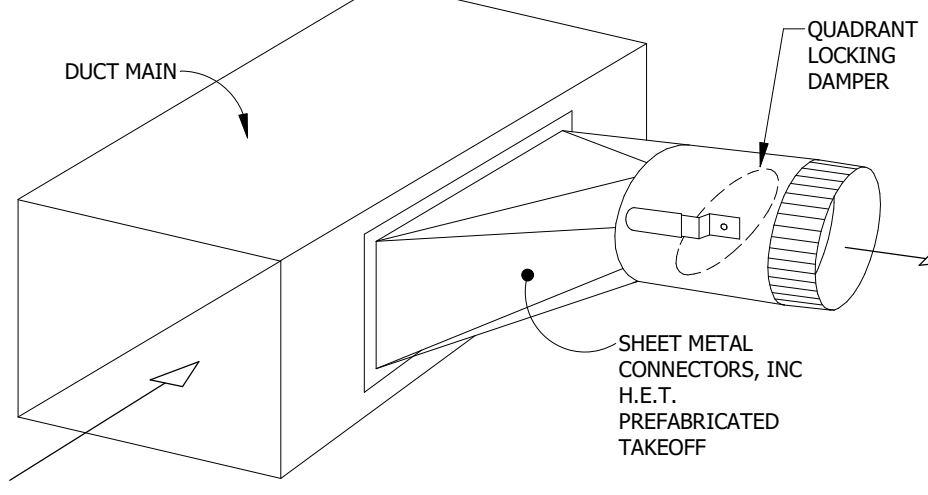
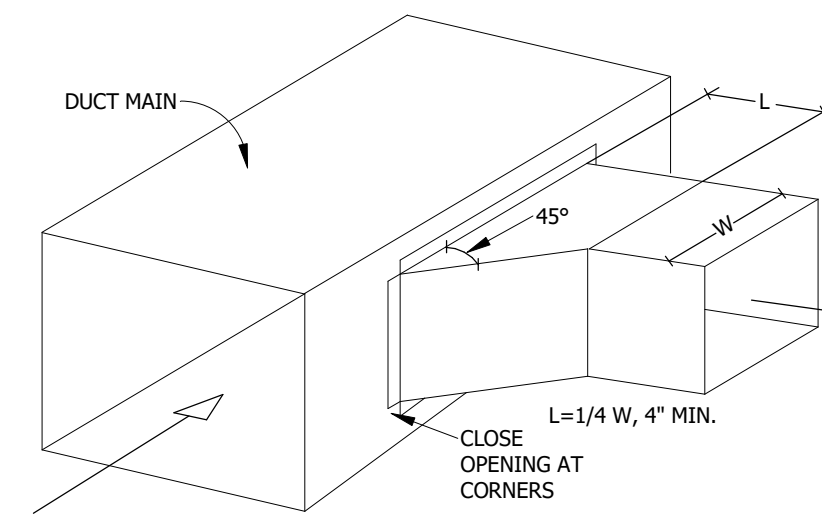
WATERLOO | DES MOINES | IOWA CITY  
214 EAST 4TH ST. | 130 EAST 3RD ST. | 118 EAST COLLEGE ST.  
WATERLOO, IOWA | DES MOINES, IOWA | IOWA CITY, IOWA  
(319)235-0650 | (515)251-7280 | (319)248-4600



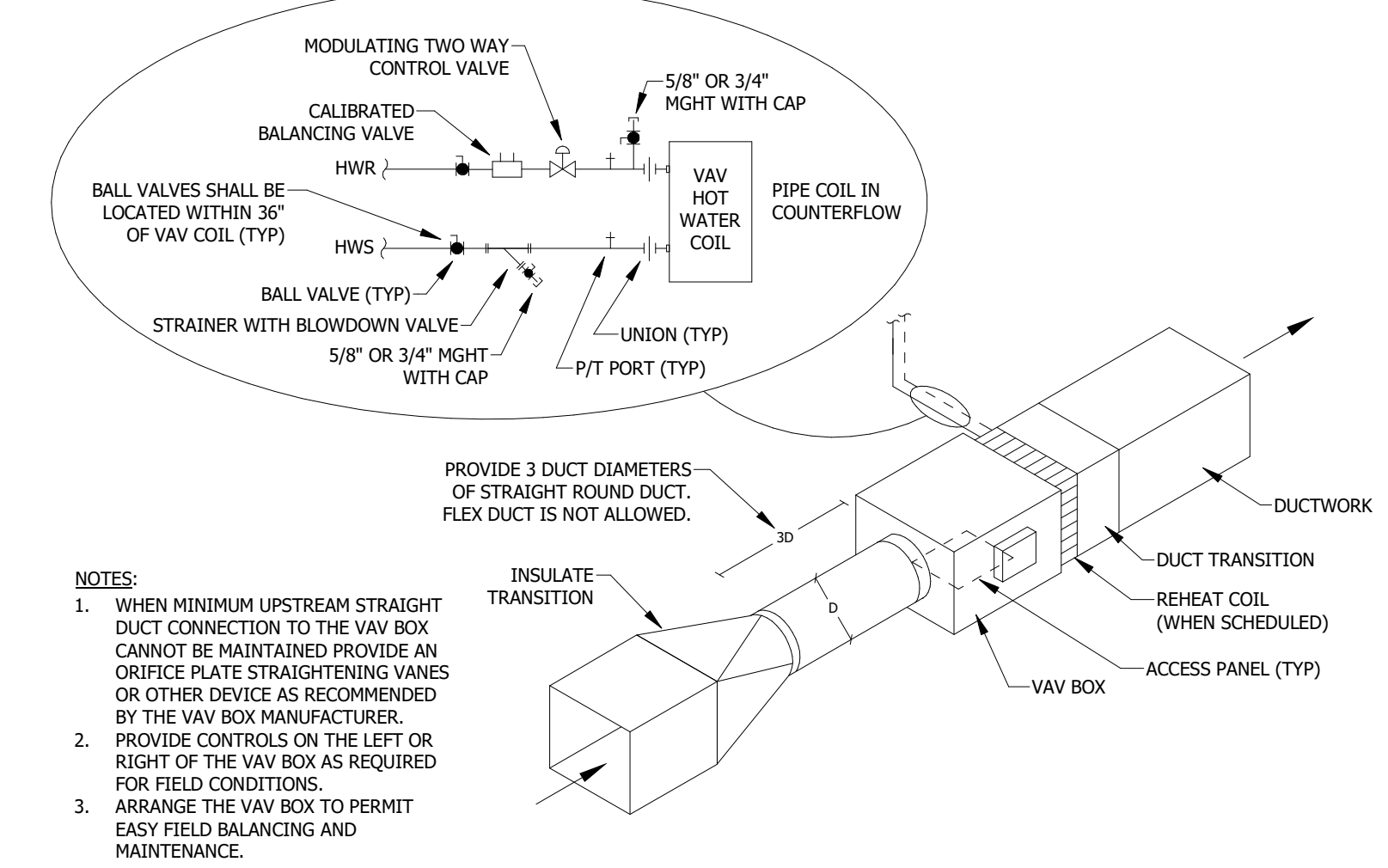


- 3.1 FIN TUBE**
- The unit functions as a fin tube radiator (FT).
- A. The RAD has:
- Heated water heating coil.
  - The RAD must have a complete field installed control system that executes this section of the sequence of control.
- B. The RAD's controls must perform the important control functions that include the following:
- Space tempering using the heating coil based on outside air temperature.
- C. The FMS contractor must include the following:
- Provide a Tier 3 programmable controller (T3C) for each FT zone control valve. Connect the T3C to a Tier 2 controller.
  - Provide software limits that prevents the minimum valve position outside air temperature from being lower than the maximum valve position outside air temperature.
  - Outside air temperature lockout.
- D. Furnish modulating control valves with end position sensors. The valves must open on loss of power.
- RAD Protection Functions:
- Alarms. Alarms must appear and buffer at the alarm reporting locations until acknowledged.
  - If the control valve is commanded to open, and the valve remains in the closed position for 2 minutes or more, announce an alarm.
  - If the control valve is commanded to be less than 50% open, and the valve remains fully open for 2 minutes or more, announce an alarm.
- E. Set Points:
- The VALVE CLOSED AND LOCKOUT SET POINT is outside air temperature above 45F (adj.).
  - The VALVE MINIMUM OPEN (ADJUSTABLE % OPEN) SET POINT outside air temperature is less than or equal to 45F (adj.) and greater than 20F (adj.).
  - The VALVE MAXIMUM OPEN (ADJUSTABLE % OPEN) SET POINT outside air temperature is less than or equal to 20F (adj.)
- F. FT On / Off Functions:
- The FMS commands the FT between ON and OFF in response to the outside air temperature.
  - The FMS outside air temperature DAT shall command the FT between ON AND OFF based on outside air temperature.
  - FT ON or OFF:
    - IF DAT <= VALVE CLOSED AND LOCKOUT SET POINT, FT ON.
    - IF DAT > VALVE CLOSED AND LOCKOUT SET POINT, FT OFF.
  - If FT indexed OFF or FT controller returns from power failure and indexed ON:
    - The control valve position shall switch between its minimum % open setting, and maximum % open setting based on outside air temperature.
    - During a power failure, control valves shall fail in the maximum % open position.
- G. Points List:
- All points listed below must appear on the FT graphic.
  - All points in the sequence labeled as (GRAPHIC) must appear on the FT Graphic Analog Input (AI)
  - Outside air temperature (global)
  - Analog Output (AO)
  - Heating coil valve commanded positions.
  - Heating coil valve actual positions.
- H. Linkage:
- Direct link from the graphic to the sequence of operation section **FIN TUBE**.
  - Direct link from the graphic to the outside air set point schedule.

6 FIN TUBE CONTROLS  
No Scale

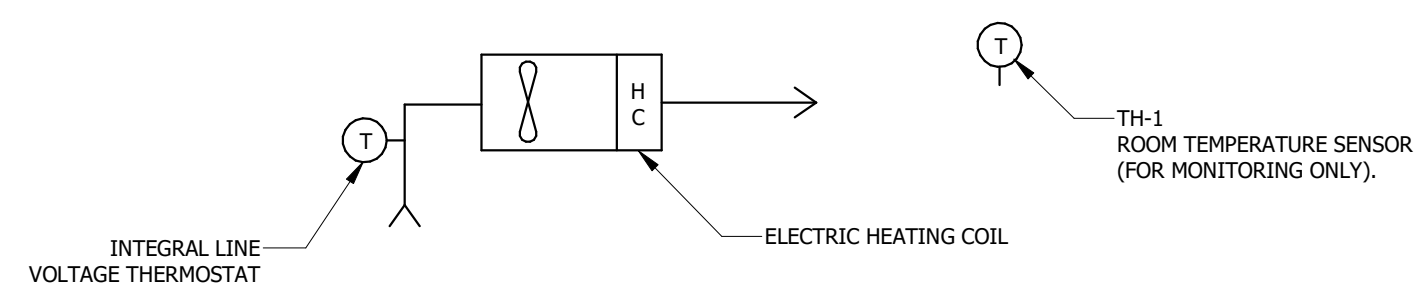


4 45 BRANCH CONNECTION DETAIL  
No Scale



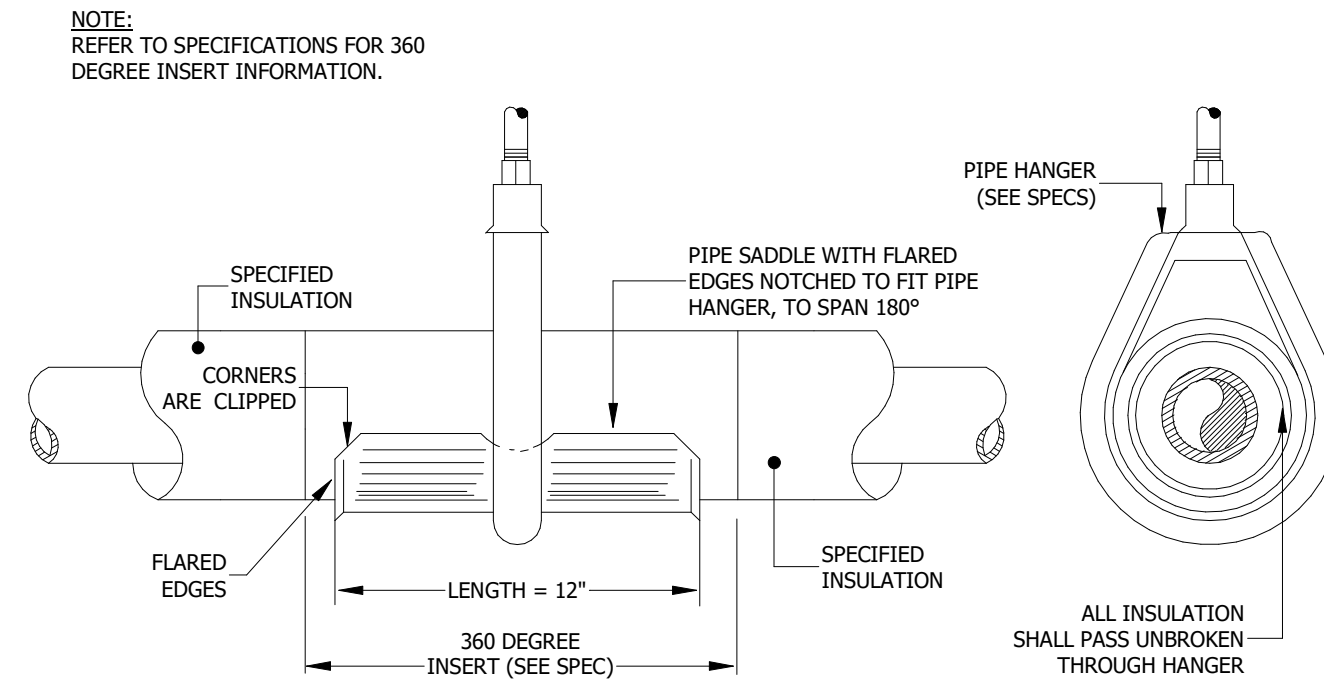
1 SINGLE DUCT VAV CONNECTION DETAIL  
No Scale

- 3.3 VAV AIR VALVE WITH REHEAT**
- The variable volume air valves are duct connected, blade damper pressure independent air terminal units with heated water reheat coils.
- B. The FMS contractor must include the following:
- Provide a dedicated Tier 3 controller (T3C) for each air valve.
  - Provide a supply air temperature sensor that is placed downstream of the heating coil.
  - Provide a reheat coil modulating control valve.
  - Provide a wall mounted thermostat set includes the following:
    - Local set point adjustment.
    - Unoccupied override button.
    - Software limit the set point adjustment range to 70F to 75F (adj.).
    - Override button initiates occupied operation for a time duration adjustable up to at least four hours.
- C. Set Points:
- The ROOM TEMPERATURE SET POINT is set using the thermostat's local set point adjustment.
  - The ROOM OCCUPIED COOLING TEMPERATURE SET POINT is 2F (adj.) above the ROOM TEMPERATURE SET POINT.
  - The ROOM OCCUPIED HEATING TEMPERATURE SET POINT is 2F (adj.) below the ROOM TEMPERATURE SET POINT.
  - The SETBACK TEMPERATURE SET POINT is 60F (GRAPHIC). Limit adjustment range to between 60F (adj.) and 67F (adj.).
  - The SETUP TEMPERATURE SET POINT is 84F (GRAPHIC). Limit adjustment range to between 79F (adj.) and 89F (adj.).
  - The HEATING DISCHARGE AIR TEMPERATURE SET POINT is 90F (GRAPHIC). Limit adjustment range to between 85F (adj.) and 100F (adj.).
  - The HEATING DISCHARGE AIR TEMPERATURE SET POINT is 70F (GRAPHIC). Limit adjustment range to between 55F (adj.) and 75F (adj.).
  - The COOLING MAXIMUM CFM SET POINT (adj.) is on the schedule.
  - The MINIMUM CFM SET POINT (adj.) is on the schedule.
  - The HEATING MAXIMUM CFM SET POINT (adj.) is on the schedule.
  - The OVERRIDE TIME SET POINT is 2 hours (adj.).
- D. Protection Functions:
- Alarms. Alarms must appear and buffer at the alarm reporting locations until acknowledged.
  - If the room temperature is more than 4F above the SETUP TEMPERATURE SET POINT or more than 4F below the SETBACK TEMPERATURE SET POINT, announce an alarm.
  - If the room temperature is below 45F (adj.), announce a critical alarm.
- E. The FMS indexes the associated AHU between occupied and unoccupied based on its time-of-day schedule.
- F. The FMS indexes the room thermostat between occupied and unoccupied.
- The time-of-day schedule indexes the room thermostat. Usually, this schedule is the same schedule as the associated AHU.
  - Using the override button indexes the room thermostat to occupied. If the OVERRIDE TIME SET POINT expires and the time-of-day schedule is unoccupied, the room thermostat indexes to unoccupied.
  - If the thermostat is indexed to occupied, the heating and cooling set points correspond to the settings on the local thermostat.
  - If the thermostat is indexed to unoccupied, the heating set point is the SETBACK TEMPERATURE SET POINT and the cooling set point is the SETUP TEMPERATURE SET POINT.
- G. If the thermostat is indexed to unoccupied:
- Evaluate the room temperature every 15 minutes (adj.).
  - If the room temperature is below the SETBACK TEMPERATURE SET POINT:
    - Vote to start and run the associated air handler.
    - Modulate the reheat coil valve to maintain the discharge air temperature at the HEATING DISCHARGE AIR TEMPERATURE SET POINT.
  - If the room temperature is between the SETBACK TEMPERATURE SET POINT and the SETUP TEMPERATURE SET POINT:
    - Do not vote to start and run the associated air handler.
    - Modulate the air valve to maintain its CFM at the MINIMUM CFM SET POINT.
    - Close the reheat coil valve.
  - If the room temperature is above the SETUP TEMPERATURE SET POINT:
    - Vote to start and run the associated air handler.
    - Modulate the air valve to maintain its CFM at the COOLING MAXIMUM CFM SET POINT.
    - Close the reheat coil valve.
  - If all non-air valves' SETBACK TEMPERATURE SET POINTS and SETUP TEMPERATURE SET POINTS are satisfied, stop the associated air handler.
- H. If the thermostat is indexed to occupied:
- If the room temperature is above the ROOM OCCUPIED COOLING TEMPERATURE SET POINT:
    - Modulate the air valve between the COMMAND MINIMUM CFM SET POINT and COOLING MAXIMUM CFM to offset the cooling demand.
    - Close the reheat valve.
  - If the room temperature is between the ROOM OCCUPIED COOLING TEMPERATURE SET POINT and ROOM OCCUPIED HEATING TEMPERATURE SET POINT:
    - Modulate the air valve to maintain the supply air temperature at the HEATING DISCHARGE AIR TEMPERATURE SET POINT.
    - Modulate the reheat valve to maintain the supply air temperature at the HEATING DISCHARGE AIR TEMPERATURE SET POINT.
  - If the room temperature is below the ROOM OCCUPIED HEATING TEMPERATURE SET POINT:
    - Modulate the air valve between the COMMAND MINIMUM CFM SET POINT and HEATING MAXIMUM CFM to offset the heating demand.
    - Modulate the reheat valve to maintain the supply air temperature at the HEATING DISCHARGE AIR TEMPERATURE SET POINT.
- I. Points List:
- All points shown here must appear on each air valve's graphic.
  - All points labeled as (GRAPHIC) must appear on each air valve's graphic.
  - Analog Input (AI) (to T3C)
  - Room temperature (TH-1)
  - Supply air temperature (TTE-1)
  - Room temperature set point (TH-1)
  - Supply air CFM
  - Analog Output (AO) (from T3C)
  - Air valve position
  - Reheat coil valve position
  - Digital Input (DI) (to T3C)
    - Unoccupied override (TH-1)
- Linkage:
- Direct link from the graphic to the sequence of operation section **VAV AIR VALVE WITH REHEAT**.

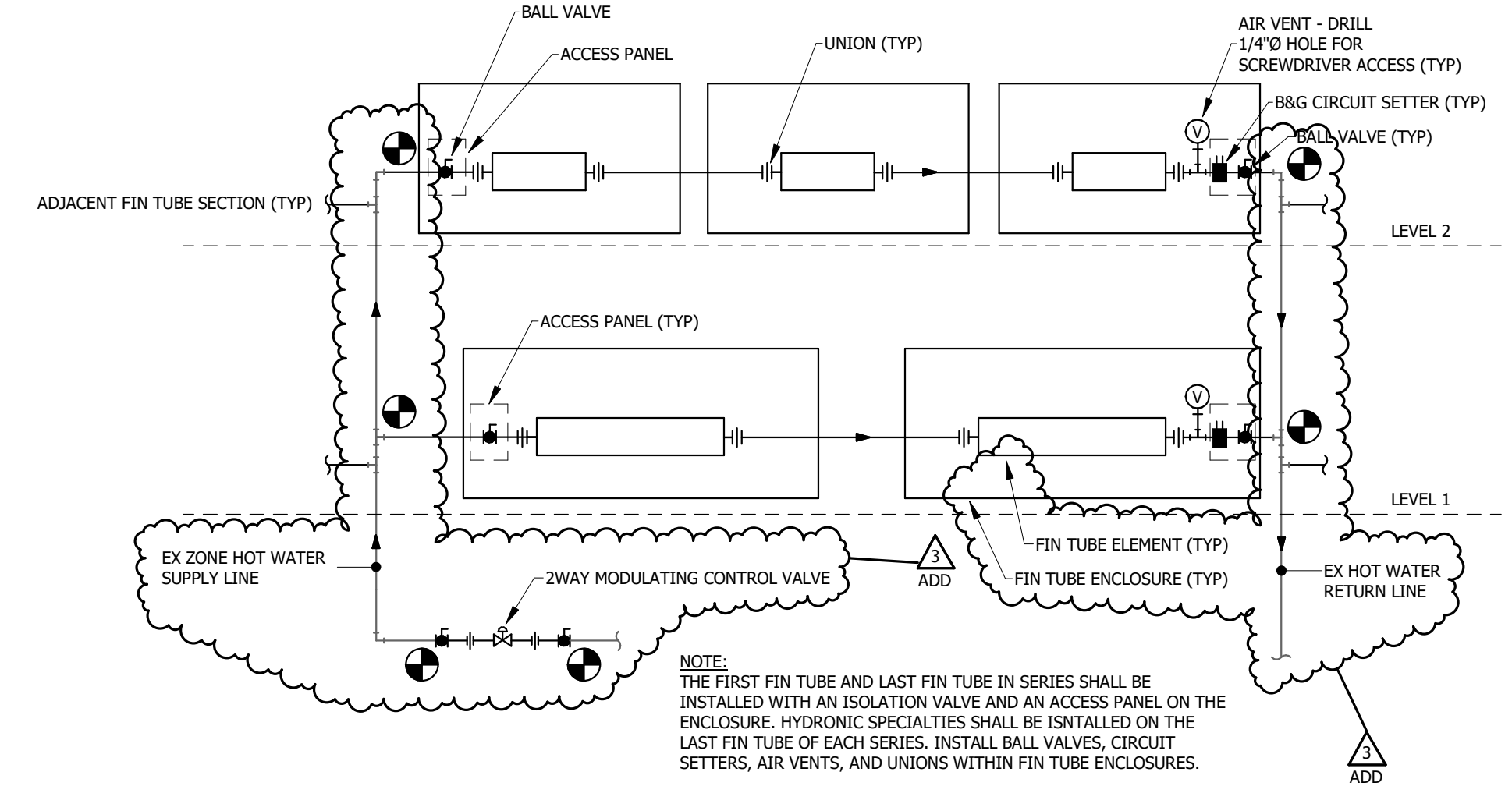


- 3.2 ELECTRIC CABINET UNIT HEATER**
- The electric cabinet unit heater shall energize based on a call for heating from the integral line voltage thermostat. The thermostat shall be set to maintain a temperature of 60F (adj.)
- B. The FMS contractor must include the following:
- Provide a remote room temperature sensor for monitoring purposes only.
- C. Protection Functions:
- Alarms. Alarms must appear and buffer at the alarm reporting locations until acknowledged.
  - If the room temperature is less than or equal to 45F (adj.) for more than 5 consecutive minutes, announce an alarm.
  - If the room temperature is less than or equal to 35F (adj.) for more than 5 consecutive minutes, announce a critical alarm.
- D. Points List:
- All points shown here must appear on each electric cabinet unit heater's graphic.
  - Room temperature (TH-1)

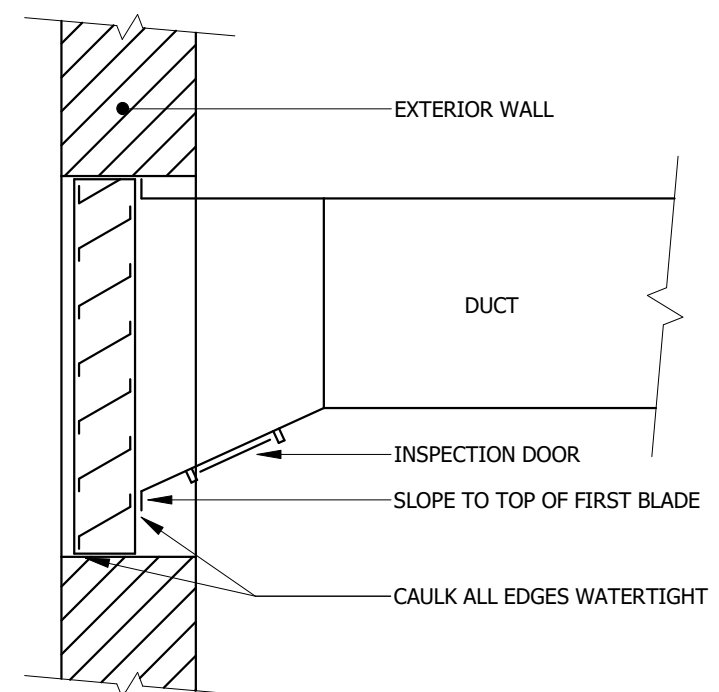
7 ELECTRIC CABINET UNIT HEATER CONTROLS  
No Scale



2 INSULATED PIPE HANGER DETAIL  
No Scale



3 WALL FIN DETAIL (ZONE CONTROLLED)  
No Scale



8 LOUVER DUCT CONNECTION DETAIL  
No Scale

Revisions	APPENDIX #3	Date
2	03/05/2024	02-13-2024
Rev Description	Project Number: 22072	Issued for Bidding
Project Manager	MEM	Issued for Construction