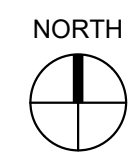
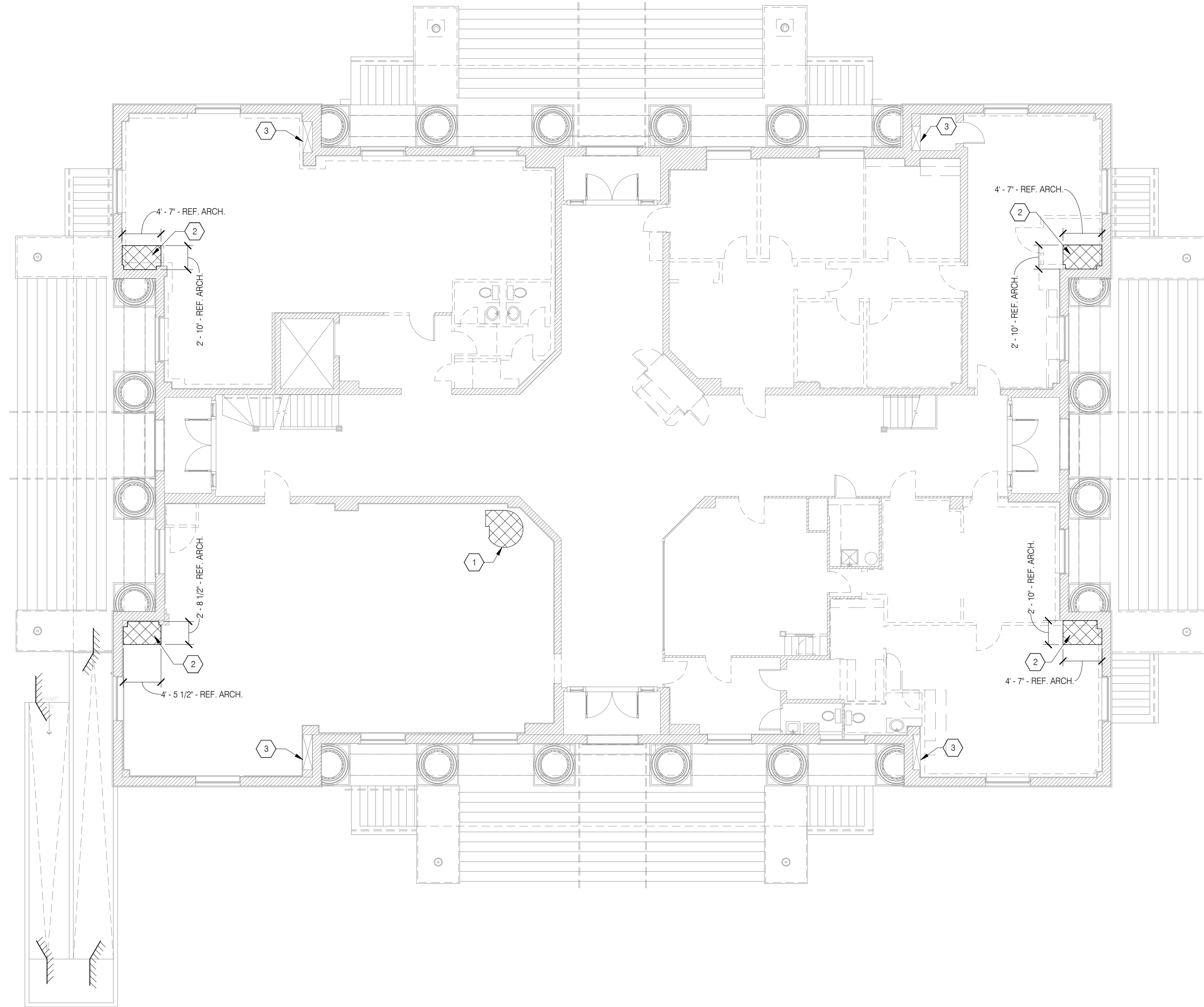


PLAN NOTES:

- 1 DEMOLISH FLOOR INFILL TO RESTORE ORIGINAL STAIR OPENING. FIELD VERIFY DIMENSIONS.
- 2 DEMOLISH SLAB WHERE SHOWN. SHORE STRUCTURE DOWN TO SLAB ON GRADE UNTIL STEEL FRAMING IS INSTALLED.
- 3 EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION. COORDINATE PENETRATION DIMENSIONS WITH ENGINEER PRIOR TO SAWCUTTING SLAB PENETRATION.

NOTE:
BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.



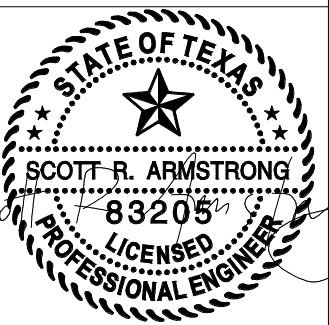
1 FIRST FLOOR PLAN - DEMOLITION

1/8" = 1'-0"

SYMBOL	DESCRIPTION	DATE	APPROVED

KOMATSU
ARCHITECTURE

ISSUED FOR CONSTRUCTION



03/11/2022

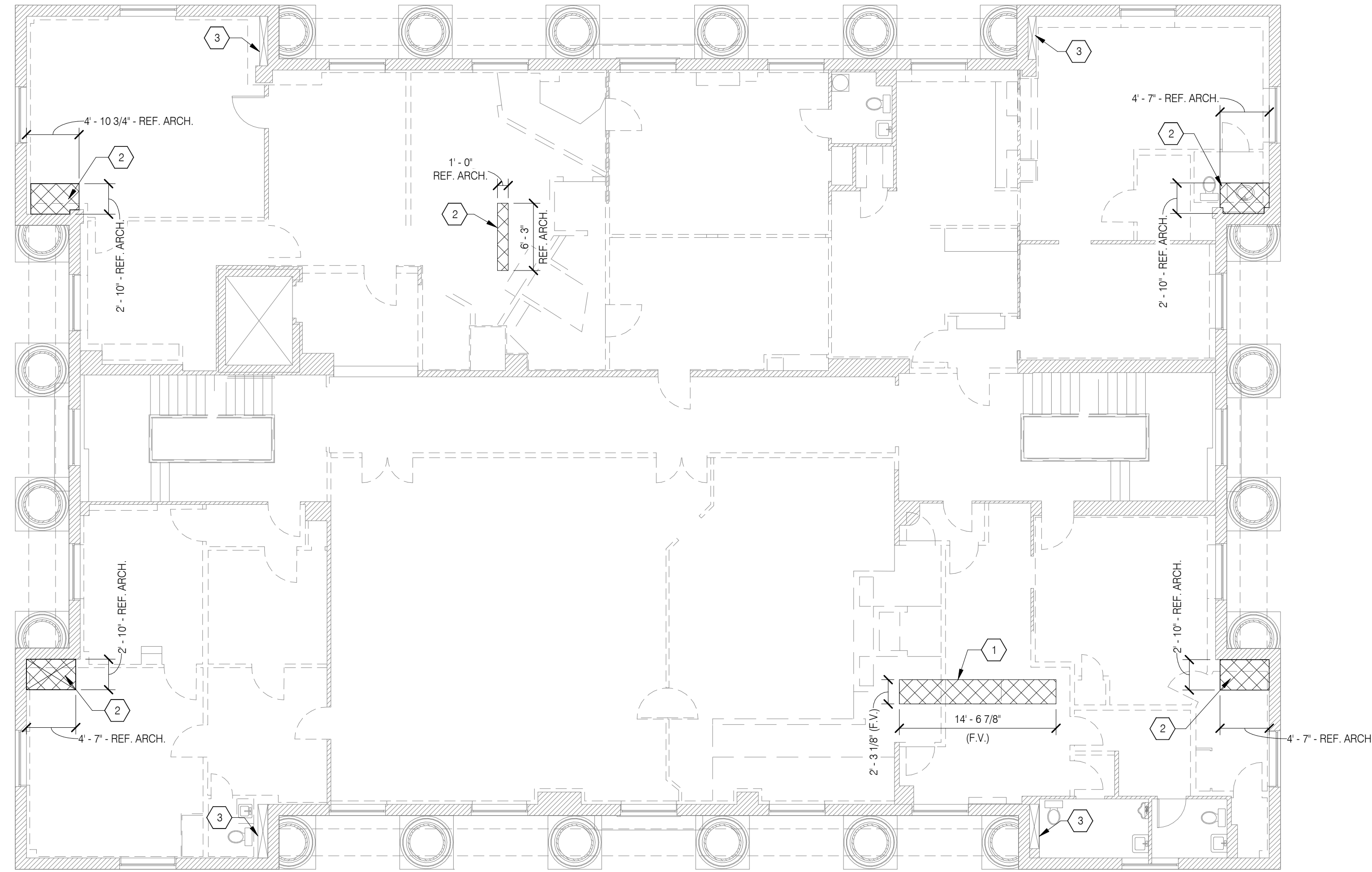
POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION
101 W. Church Street
Livingston, TX 77351
FIRST FLOOR PLAN - DEMOLITION

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET	OF SEQ #

SD1.02

- PLAN NOTES:**
- 1 DEMOLISH FLOOR INFILL TO RESTORE ORIGINAL STAIR OPENING. FIELD VERIFY DIMENSIONS.
 - 2 DEMOLISH SLAB WHERE SHOWN. SHORE STRUCTURE DOWN TO SLAB ON GRADE UNTIL STEEL FRAMING IS INSTALLED.
 - 3 EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION. COORDINATE PENETRATION DIMENSIONS WITH ENGINEER PRIOR TO SAWCUTTING SLAB PENETRATION.

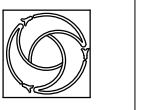
NOTE:
 BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.



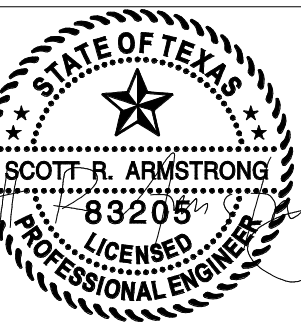
1 SECOND FLOOR PLAN - DEMOLITION

1/8" = 1'-0"

KOMATSU
 ARCHITECTURE



ISSUED FOR CONSTRUCTION



03/11/2022

**POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION**

101 W. Church Street
 Livingston, TX 77351

SECOND FLOOR PLAN - DEMOLITION

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET	OF SEQ #

SD1.03

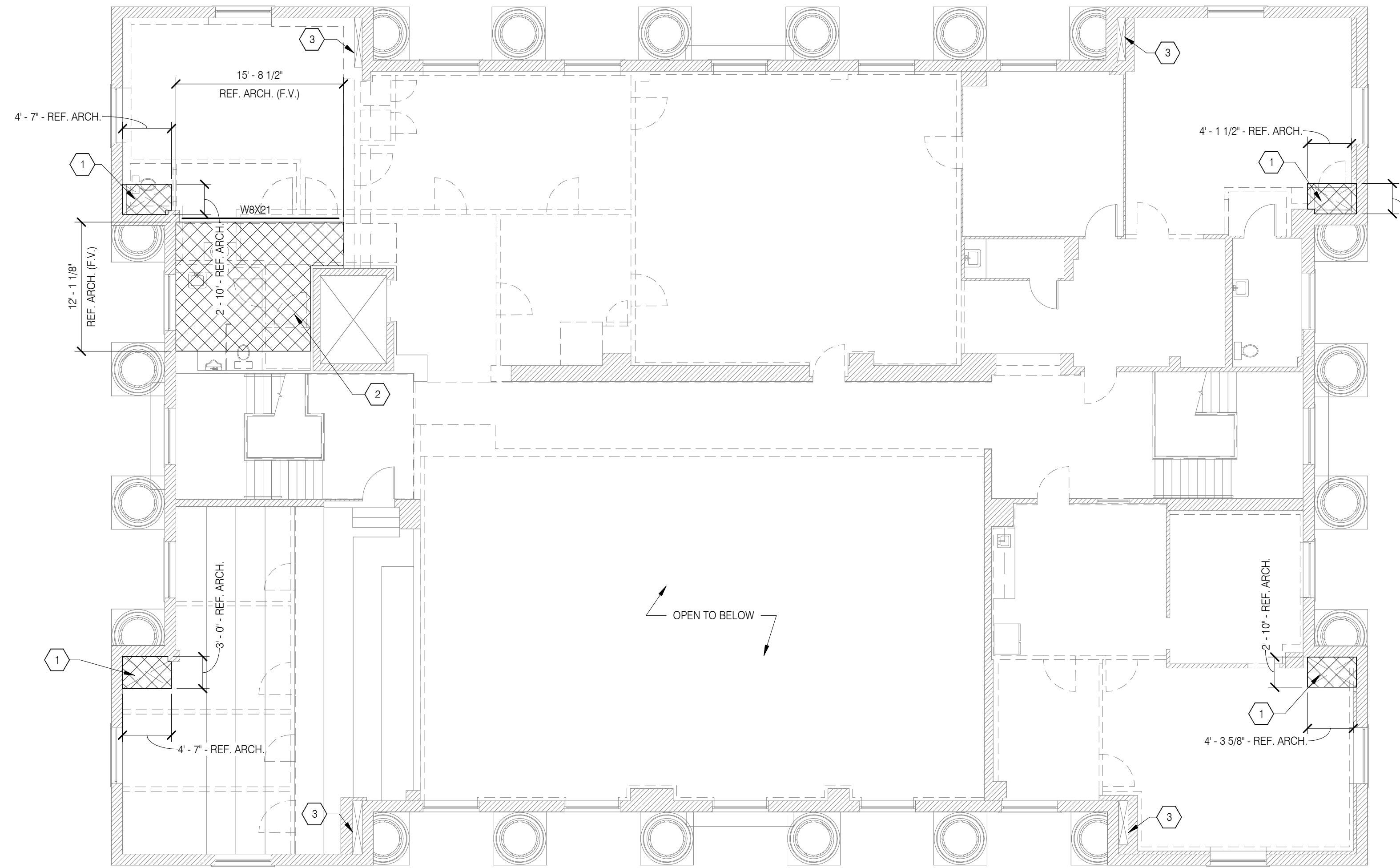
SYMBOL	DESCRIPTION	DATE	APPROVED

PLAN NOTES:

- 1 DEMOLISH SLAB WHERE SHOWN. SHORE STRUCTURE DOWN TO SLAB ON GRADE UNTIL STEEL FRAMING IS INSTALLED.
- 2 INSTALL STEEL BEAM PRIOR TO DEMOLISHING EXISTING SLAB AND CONCRETE BEAM. ALIGN SOUTHERN EXTENTS OF SLAB DEMOLITION WITH FACE OF EXISTING CONCRETE BEAM.
- 3 EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION. COORDINATE PENETRATION DIMENSIONS WITH ENGINEER PRIOR TO SAWCUTTING SLAB PENETRATION.

NOTES:

1. BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS. HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
2. PRIOR TO INSTALLING STEEL BEAMS, CONTRACTOR SHALL SCAN EXISTING CONCRETE BEAMS TO WHICH STEEL BEAMS WILL BE ANCHORED. USE NON-DESTRUCTIVE METHODS TO LOCATE EXISTING REINFORCING STEEL SIZE AND LAYOUT. CHIP OUT TO CONFIRM REINFORCING STEEL SIZE AND LAYOUT AT A FEW LOCATIONS AND REPAIR THE AREAS. CONTRACTOR SHALL PROVIDE FIELD VERIFIED DATA FOR ENGINEER'S ANALYSIS OF THE EXISTING CONCRETE BEAMS. ADDITIONAL REINFORCING OF THE EXISTING CONCRETE BEAMS MAY BE NECESSARY.



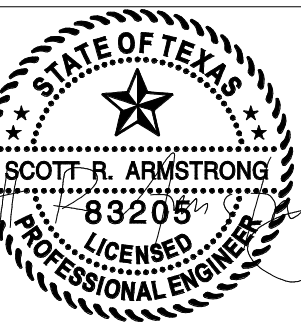
1 THIRD FLOOR PLAN - DEMOLITION

1/8" = 1'-0"

KOMATSU
 ARCHITECTURE



ISSUED FOR CONSTRUCTION



03/11/2022

POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION

101 W. Church Street
 Livingston, TX 77351

THIRD FLOOR PLAN - DEMOLITION

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET	OF SEQ #

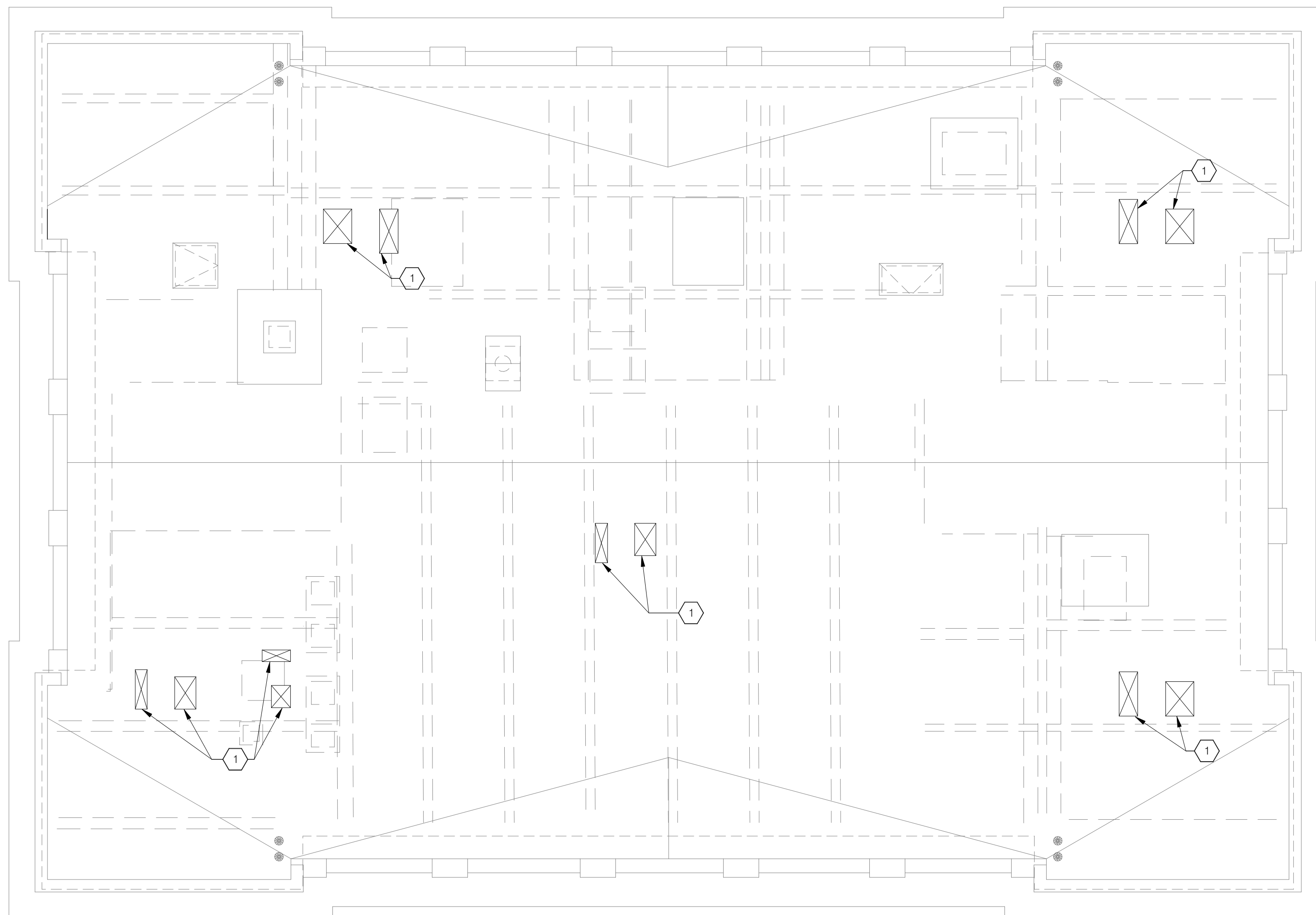
SD1.04

SYMBOL	DESCRIPTION	DATE	APPROVED

PLAN NOTES:

1 DEMOLISH SLAB WHERE SHOWN. SHORE STRUCTURE DOWN TO SLAB ON GRADE UNTIL STEEL FRAMING IS INSTALLED.

NOTE:
 BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS. HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.



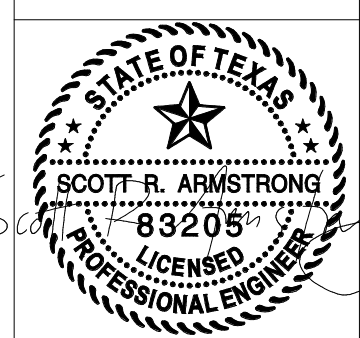
1 ROOF PLAN - DEMOLITION

1/8" = 1'-0"

SYMBOL	DESCRIPTION	DATE	APPROVED

KOMATSU
 ARCHITECTURE

ISSUED FOR CONSTRUCTION



03/11/2022

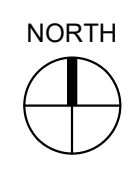
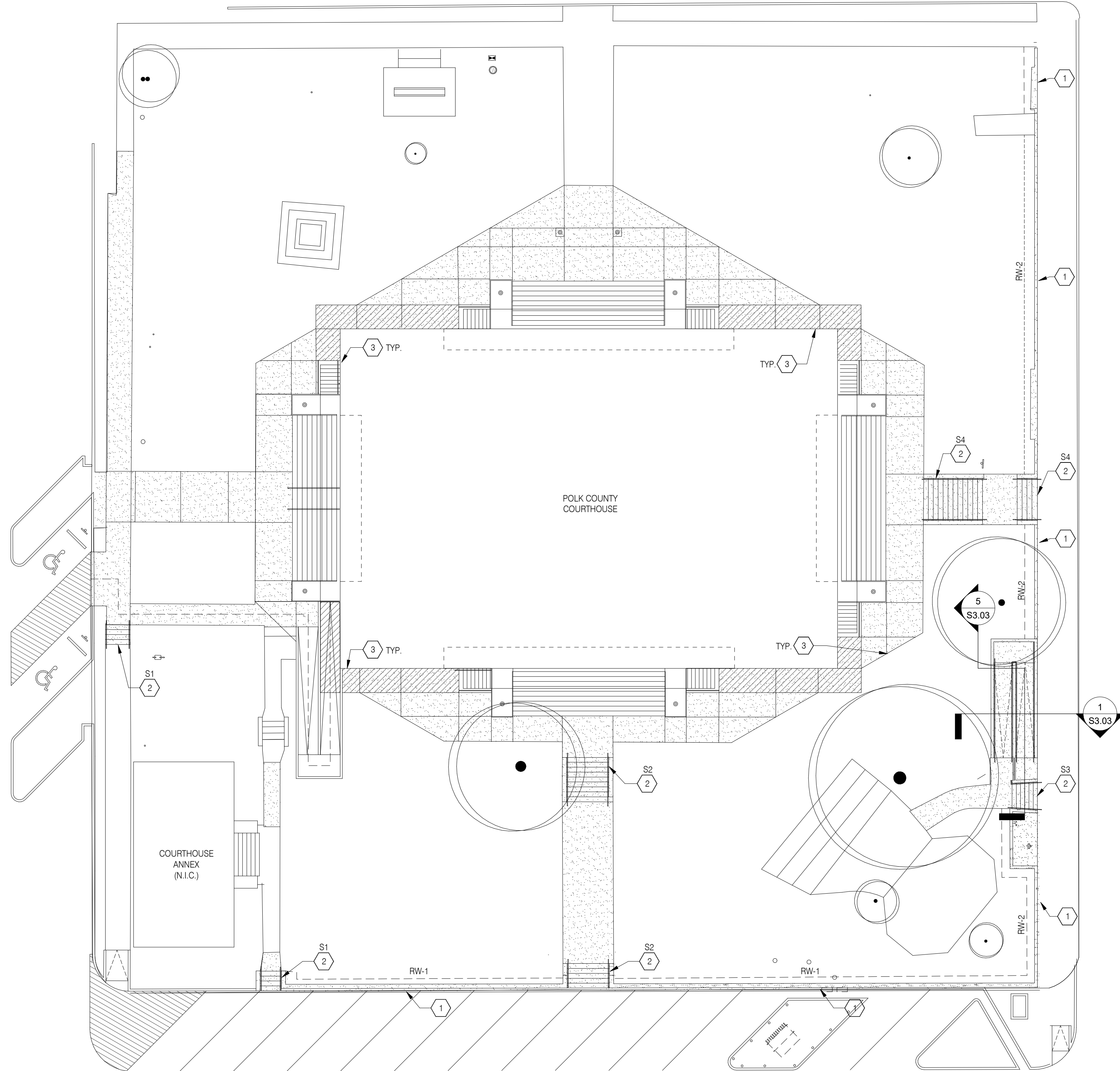
POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION
 101 W. Church Street
 Livingston, TX 77351
 ROOF PLAN - DEMOLITION

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET OF SEQ #	

SD1.05

SITE PLAN NOTES:

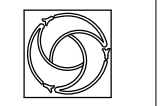
- 1 SITE RETAINING WALL PER 4/ S3.03 REF. CIVIL FOR ADD'L. INFO.
 - 2 STAIR PER SCHEDULE REF. 5/ S3.02
- | STAIR | TREAD DEPTH | RISER HEIGHT |
|-------|-------------|--------------------|
| S1 | 1'-2" | EQ. SPA. (7" MAX.) |
| S2 | 1'-2" | 6" |
| S3 | 1'-0" | 5 1/2" |
| S4 | 1'-2" | 6 3/8" |
- 3 EXTERIOR PERIMETER WALLS MUST REMAIN EXCAVATED UNTIL INTERIOR PERIMETER BASEMENT SLAB ON GRADE HAS REACHED 75% OF ITS 28 - DAY STRENGTH.



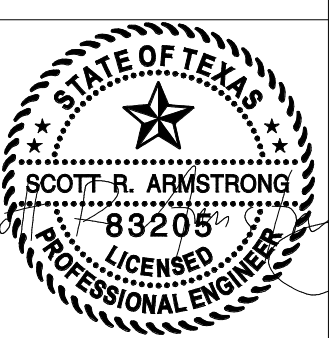
1 SITE PLAN - RESTORATION

1/16" = 1'-0"

KOMATSU
 ARCHITECTURE



ISSUED FOR CONSTRUCTION



03/11/2022

**POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION**

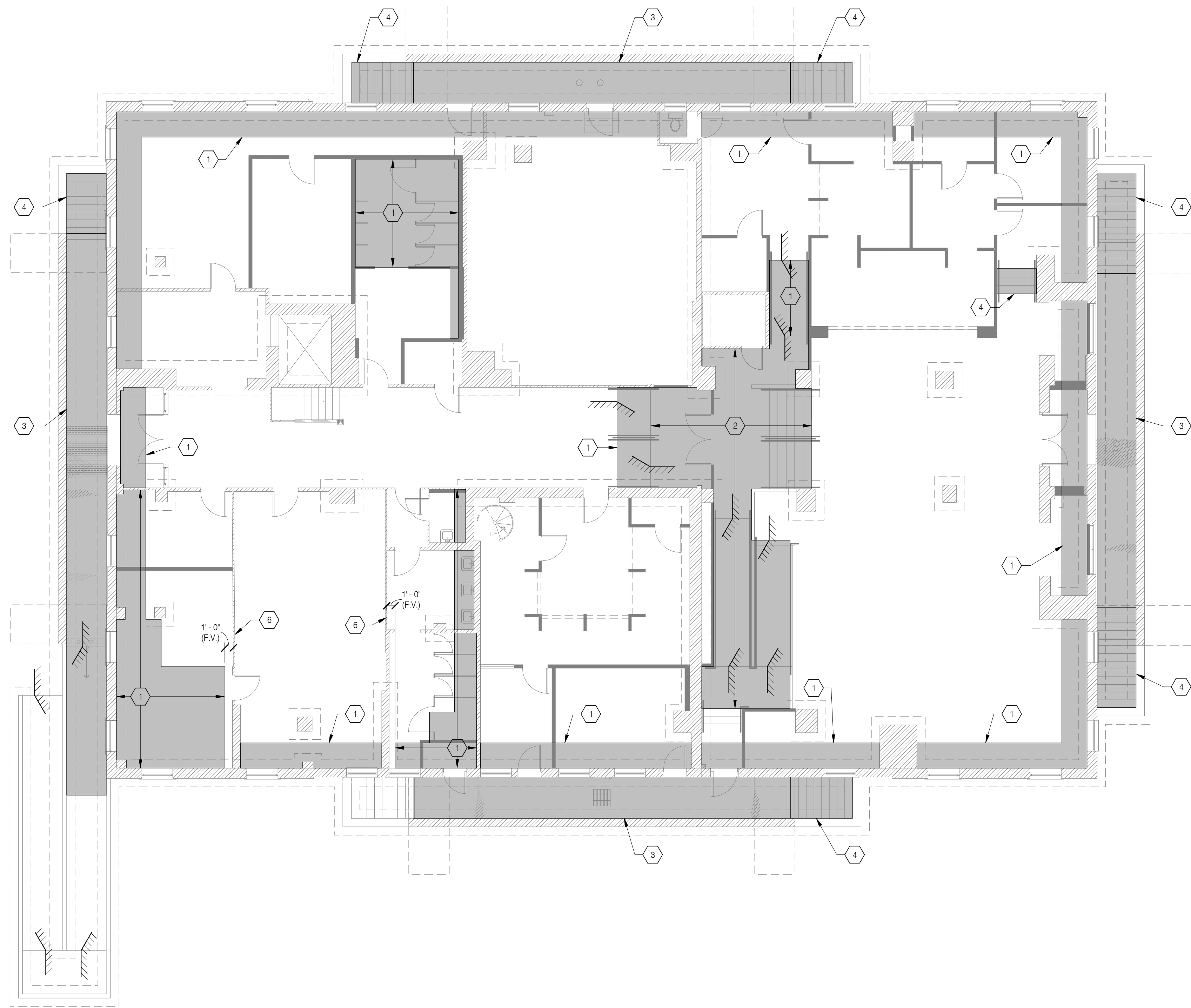
101 W. Church Street
 Livingston, TX 77351

SITE PLAN - RESTORATION

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET OF SEQ #	

S1.00

SYMBOL	DESCRIPTION	DATE	APPROVED



PLAN NOTES:

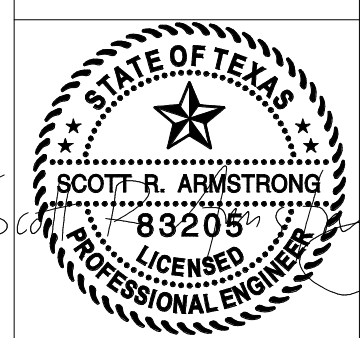
- 1 REPLACE EXISTING CONCRETE SLAB ON GRADE W/ 5 INCH SLAB ON GRADE REINFORCED W/ #4 @ 16" O.C., EACH WAY. INSTALL 15 MIL VAPOR RETARDER UNDER SLAB. SLAB ALONG PERIMETER WALLS MUST REACH 75% OF 28 DAY STRENGTH PRIOR TO EXTERIOR WALLS BEING BACKFILLED. REFER TO **3/S3.03**.
 - 2 RAISE EXISTING SLAB ELEVATION TO MATCH CORRIDOR ELEVATION USING EPS-19 GEOFOAM. INSTALL 15 MIL VAPOR RETARDER UNDER NEW SLAB. 4 INCH SLAB ON GRADE REINFORCED W/ 6X6 - W2.1KW2.1 WWF. REFER TO **7/S3.03**.
 - 3 REPLACE EXISTING CONCRETE SLAB ON GRADE W/ 5 INCH SLAB ON GRADE, REINFORCED W/ #4 @ 16" O.C., EACH WAY. REFER TO **3/S3.03**.
 - 4 REPLACE CONCRETE STAIRS TO MATCH EXISTING. REFER TO **5/S3.02**. CONTRACTOR TO VERIFY DEPTH OF EXISTING WALL AT STAIR TO ENSURE WALL IS NOT UNDERMINED PRIOR TO STAIR REMOVAL AND REPLACEMENT.
 - 5 NOT USED.
 - 6 HISTORIC 2" MASONRY PARTITION WALL. DO NOT DAMAGE WALL DURING DEMOLITION OF SLAB ON GRADE.
7. ADDITIONAL SLAB REMOVAL/REPLACEMENT MAY BE REQUIRED UPON FIELD VERIFICATION OF EXISTING STORM DRAIN INFRASTRUCTURE AND PLUMBING ENGINEERS PROFESSIONAL RECOMMENDATIONS.
8. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND SUBMIT WRITTEN PROPOSAL REQUEST FOR ANY ADDITIONAL REMEDIAL STORM DRAIN ALTERATIONS NOT OTHERWISE DOCUMENTED BY ENGINEER'S RESTORATION PLUMBING PLANS.

NOTE:
BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS. HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

1	100%CD	SYN.	DESCRIPTION	DATE	APPROVED
			REVISIONS		



ISSUED FOR CONSTRUCTION



03/11/2022



1 BASEMENT FLOOR PLAN - RESTORATION

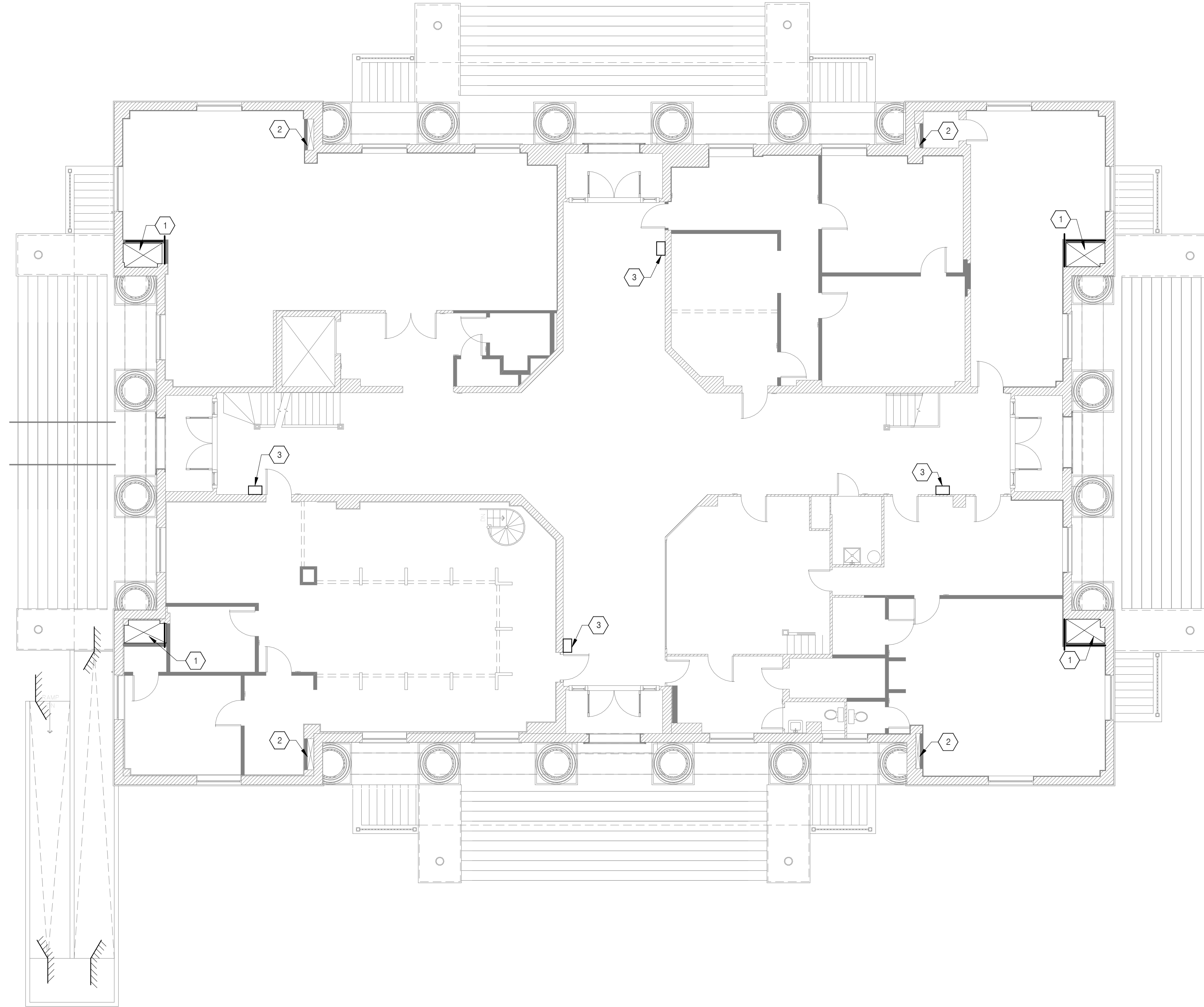
1/8" = 1'-0"

POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION
101 W. Church Street
Livingston, TX 77351
BASEMENT FLOOR PLAN - RESTORATION

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET OF SEQ #	

S1.01

XREFS:



- PLAN NOTES:
- 1 MECHANICAL CHASE PENETRATIONS. INSTALL W8X10 BEAMS TO SUPPORT EDGE OF SLAB. ANCHOR ENDS OF STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF. ARCH. & MEP. REFER TO 9/SS.01.
 - 2 EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION. COORDINATE PENETRATION DIMENSIONS WITH ENGINEER PRIOR TO SAWCUTTING SLAB PENETRATION.
 - 3 FLOOR PLATE INFILL AT FORMER HVAC DUCTING.

NOTE:
 BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.



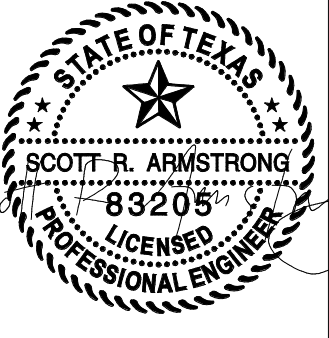
1 FIRST FLOOR PLAN - RESTORATION

1/8" = 1'-0"

SYMBOL	DESCRIPTION	DATE	APPROVED
1	100% C.D.	03/03/2021	

KOMATSU
 ARCHITECTURE

ISSUED FOR CONSTRUCTION



03/11/2022

POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION
 101 W. Church Street
 Livingston, TX 77351

FIRST FLOOR PLAN - RESTORATION

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET OF	SEQ #

S1.02

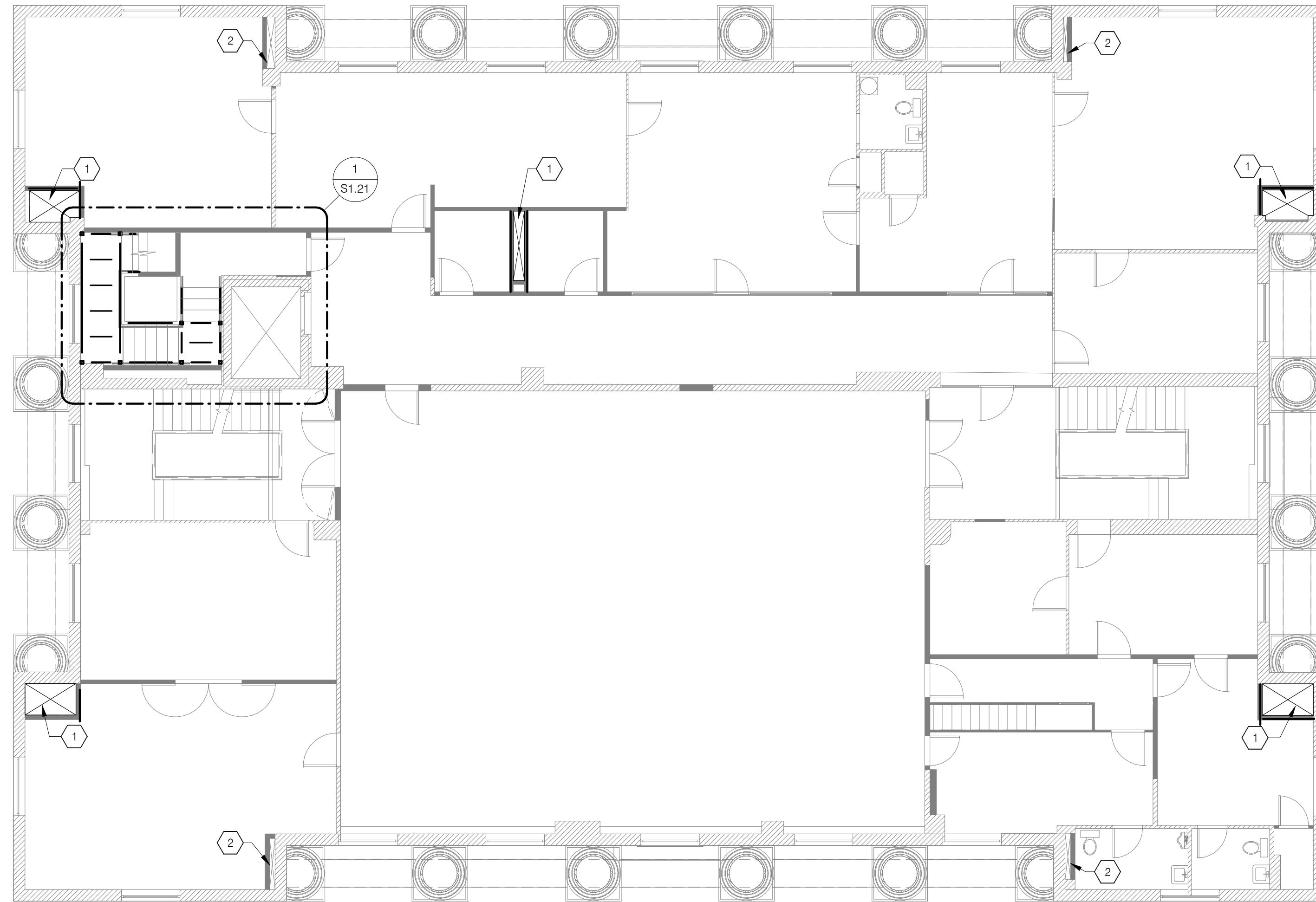
XREFS:

PLAN NOTES:

- 1 MECHANICAL CHASE PENETRATIONS. INSTALL W8X10 BEAMS TO SUPPORT EDGE OF SLAB. ANCHOR ENDS OF STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF. ARCH. & MEP. REFER TO 3/SS.01.
- 2 EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION. COORDINATE PENETRATION DIMENSIONS WITH ENGINEER PRIOR TO SAWCUTTING SLAB PENETRATION.

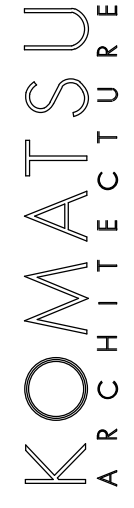
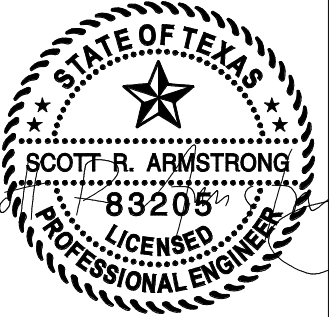
NOTES:

- 1. BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
- 2. PRIOR TO INSTALLING STEEL BEAMS, CONTRACTOR SHALL SCAN EXISTING CONCRETE BEAMS TO WHICH STEEL BEAMS WILL BE ANCHORED. USE NON-DESTRUCTIVE METHODS TO LOCATE EXISTING REINFORCING STEEL SIZE AND LAYOUT. CHIP OUT TO CONFIRM REINFORCING STEEL SIZE AND LAYOUT AT A FEW LOCATIONS AND REPAIR THE AREAS. CONTRACTOR SHALL PROVIDE FIELD VERIFIED DATA FOR ENGINEER'S ANALYSIS OF THE EXISTING CONCRETE BEAMS. ADDITIONAL REINFORCING OF THE EXISTING CONCRETE BEAMS MAY BE NECESSARY.



1 SECOND FLOOR PLAN - RESTORATION

1/8" = 1'-0"

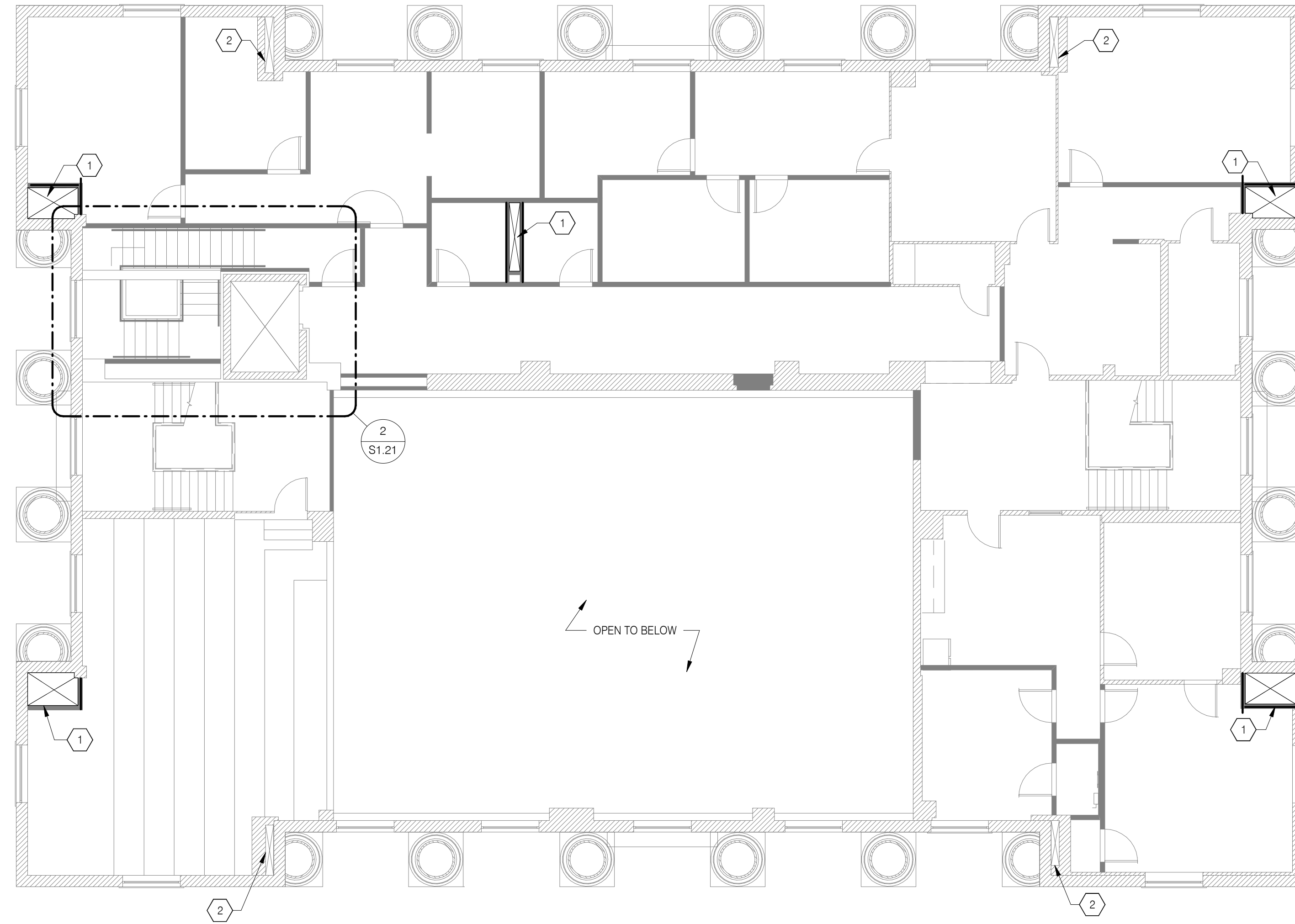
100&CD		DATE	09/03/2021	APPROVED
1	SYM.	DESCRIPTION	REVISIONS	
 ISSUED FOR CONSTRUCTION				
				
POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION 101 W. Church Street Livingston, TX 77351 SECOND FLOOR PLAN - RESTORATION				
SHEET SIZE	22 x 34			
SCALE:				
KAI JOB NUMBER:	2017.171B			
SPECIFICATIONS NO.:	N/A			
DATE:	03/11/2022			
SHEET OF	SEQ #			
S1.03				

PLAN NOTES:

- 1 MECHANICAL CHASE PENETRATIONS. INSTALL W8X10 BEAMS TO SUPPORT EDGE OF SLAB. ANCHOR ENDS OF STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF. ARCH. & MEP. REFER TO 3/SS.01.
- 2 EXISTING PIPE CHASE TO BE ALTERED TO MINIMAL EXTENT AS REQUIRED TO PROVIDE SLAB PENETRATION FOR NEW PLUMBING PIPING. CONTRACTOR TO VERIFY PLUMBING INFO WITH ARCHITECT AND PHASE TWO RESTORATION DRAWINGS SET PRIOR TO SAWCUTTING SLAB PENETRATION. COORDINATE PENETRATION DIMENSIONS WITH ENGINEER PRIOR TO SAWCUTTING SLAB PENETRATION.

NOTES:

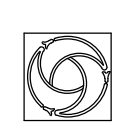
- 1. BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
- 2. PRIOR TO INSTALLING STEEL BEAMS, CONTRACTOR SHALL SCAN EXISTING CONCRETE BEAMS TO WHICH STEEL BEAMS WILL BE ANCHORED. USE NON-DESTRUCTIVE METHODS TO LOCATE EXISTING REINFORCING STEEL SIZE AND LAYOUT. CHIP OUT TO CONFIRM REINFORCING STEEL SIZE AND LAYOUT AT A FEW LOCATIONS AND REPAIR THE AREAS. CONTRACTOR SHALL PROVIDE FIELD VERIFIED DATA FOR ENGINEER'S ANALYSIS OF THE EXISTING CONCRETE BEAMS. ADDITIONAL REINFORCING OF THE EXISTING CONCRETE BEAMS MAY BE NECESSARY.



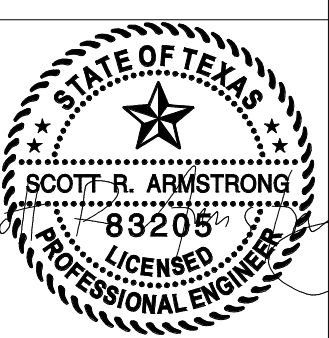
1 THIRD FLOOR PLAN - RESTORATION 1/8" = 1'-0"

1	100&CD	SYN.	DESCRIPTION	DATE	APPROVED
				09/03/2021	
				REVISIONS	

KOMATSU
 ARCHITECTURE



ISSUED FOR CONSTRUCTION



03/11/2022

POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION
 101 W. Church Street
 Livingston, TX 77351
 THIRD FLOOR PLAN - RESTORATION

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET OF SEQ #	

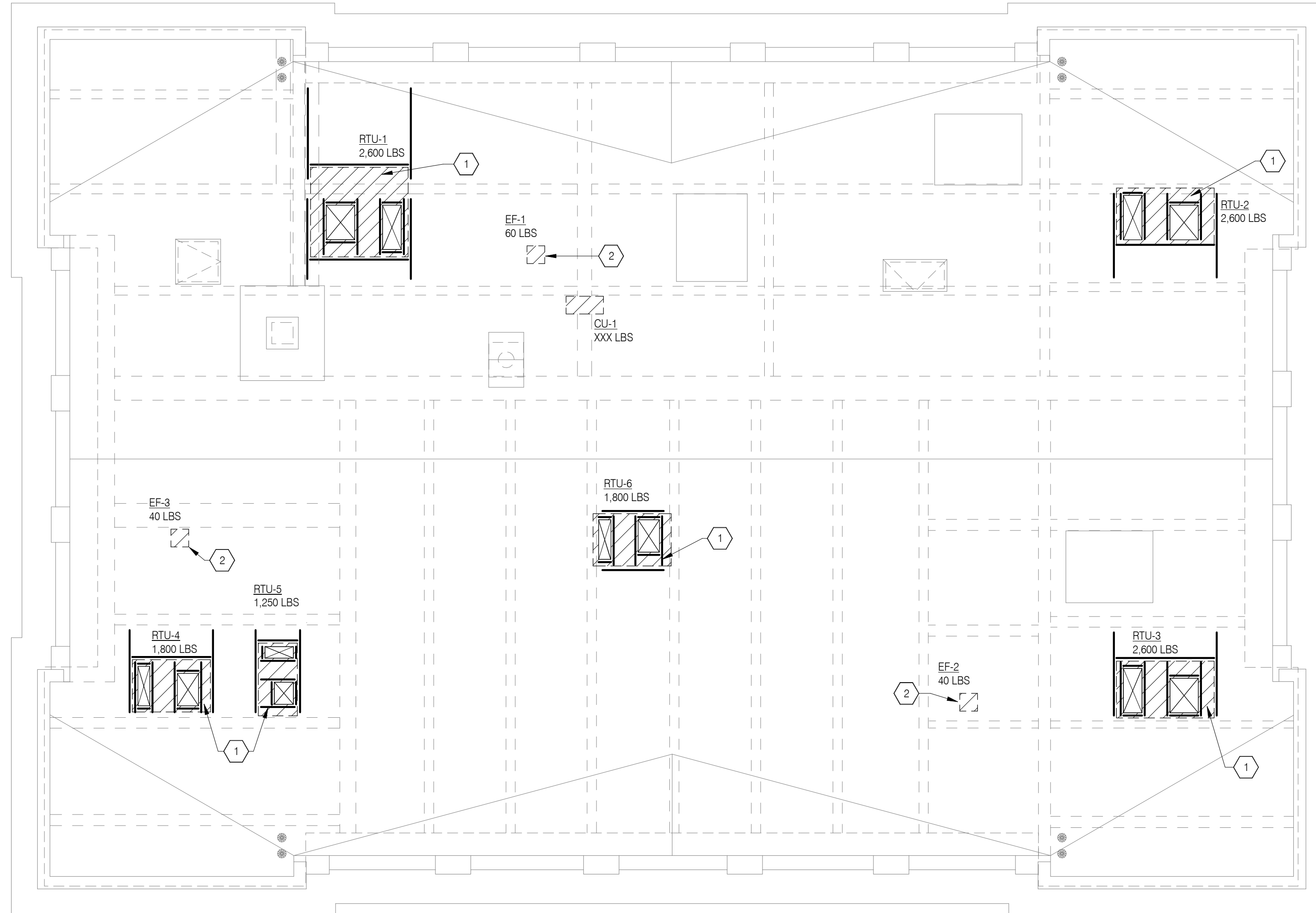
S1.04

PLAN NOTES:

- ① MECHANICAL CHASE PENETRATIONS. INSTALL W8X10 BEAMS TO SUPPORT EDGE OF SLAB. ANCHOR ENDS OF STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF. ARCH. & MEP. REFER TO **3/ SS.01**.
- ② INSTALL W8X10 BEAMS TO SUPPORT RTU CURBS. ANCHOR ENDS OF STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF. ARCH. & MEP. REFER TO **3/ SS.01**.

NOTES:

- 1. BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
- 2. PRIOR TO INSTALLING STEEL BEAMS, CONTRACTOR SHALL SCAN EXISTING CONCRETE BEAMS TO WHICH STEEL BEAMS WILL BE ANCHORED. USE NON-DESTRUCTIVE METHODS TO LOCATE EXISTING REINFORCING STEEL SIZE AND LAYOUT. CHIP OUT TO CONFIRM REINFORCING STEEL SIZE AND LAYOUT AT A FEW LOCATIONS AND REPAIR THE AREAS. CONTRACTOR SHALL PROVIDE FIELD VERIFIED DATA FOR ENGINEER'S ANALYSIS OF THE EXISTING CONCRETE BEAMS. ADDITIONAL REINFORCING OF THE EXISTING CONCRETE BEAMS MAY BE NECESSARY.



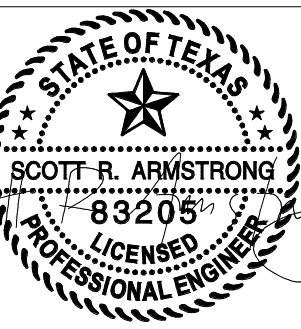
1 ROOF PLAN - RESTORATION

1/8" = 1'-0"

KOMATSU
 ARCHITECTURE



ISSUED FOR CONSTRUCTION



03/11/2022

POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION

101 W. Church Street
 Livingston, TX 77351

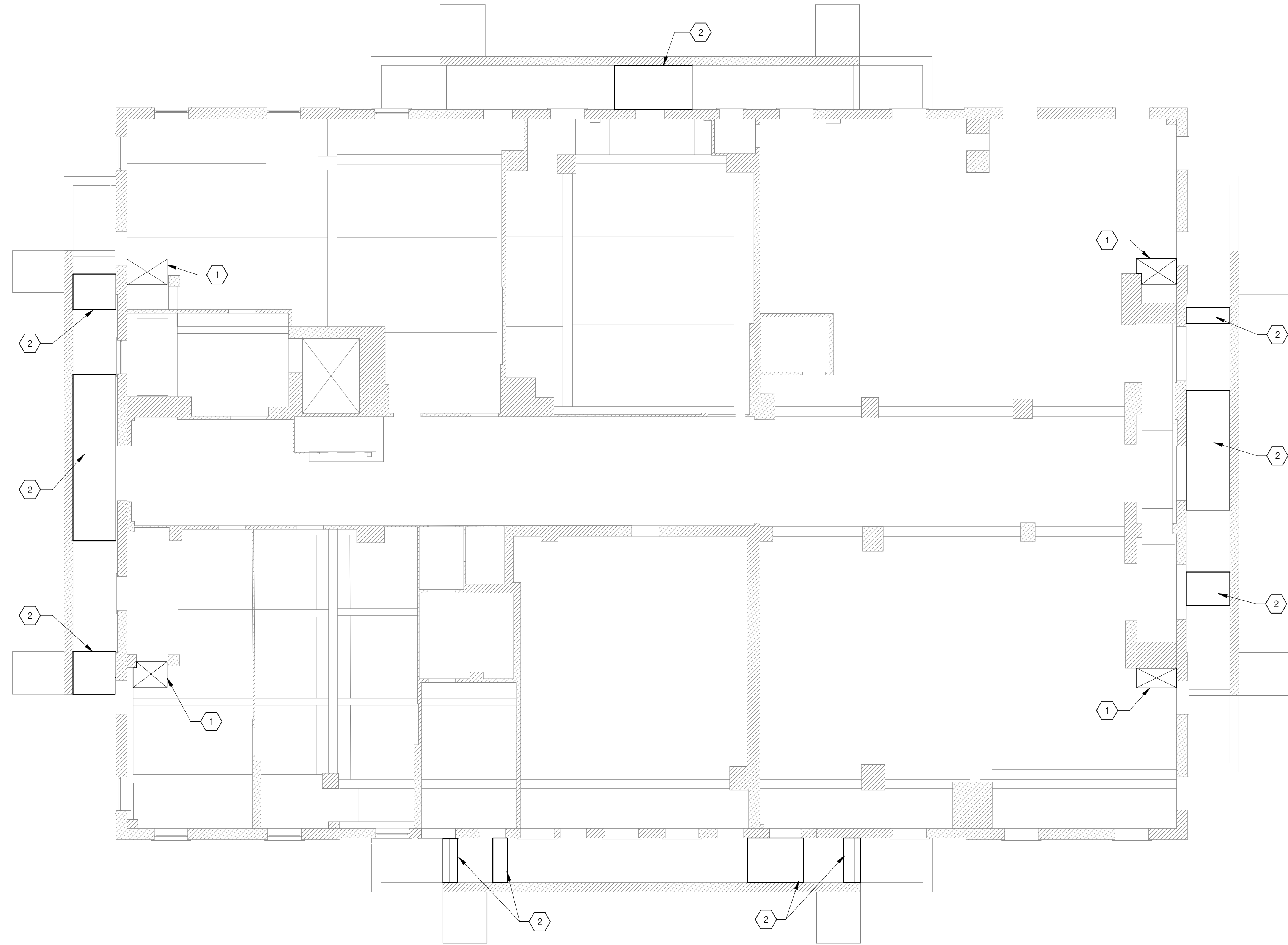
ROOF PLAN - RESTORATION

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET OF SEQ #	

S1.05

SYMBOL	DESCRIPTION	DATE	APPROVED
1	100%CD	03/03/2021	

REVISIONS



PLAN NOTES:

1 MECHANICAL CHASE PENETRATIONS. INSTALL W8X10 BEAMS TO SUPPORT EDGE OF SLAB. ANCHOR ENDS OF STEEL BEAMS TO EXISTING CONCRETE STRUCTURE. REF. ARCH. & MEP. REFER TO **3/S5.01**.

2 MISCELLANEOUS CONCRETE REPAIR. EPOXY INJECT CRACKS; REMOVE AND REPLACE UNSOUND CONCRETE PER **6 & 8/S3.03** ADDITIONAL AREAS LIKELY TO BE DISCOVERED DURING DEMOLITION PHASE.

NOTE:
 BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION DOCUMENTS; HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

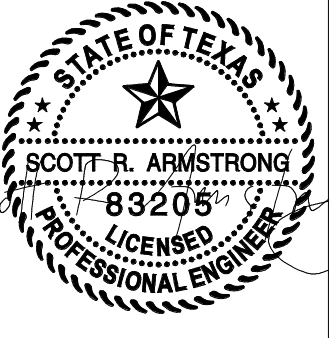


1 BASEMENT REFLECTED CEILING PLAN 1/8" = 1'-0"

SYMBOL	DESCRIPTION	DATE	APPROVED
1	100%CD	09/03/2021	

KOMATSU
 ARCHITECTURE

ISSUED FOR CONSTRUCTION



POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION

101 W. Church Street
 Livingston, TX 77351

BASEMENT REFLECTED CEILING PLAN

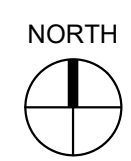
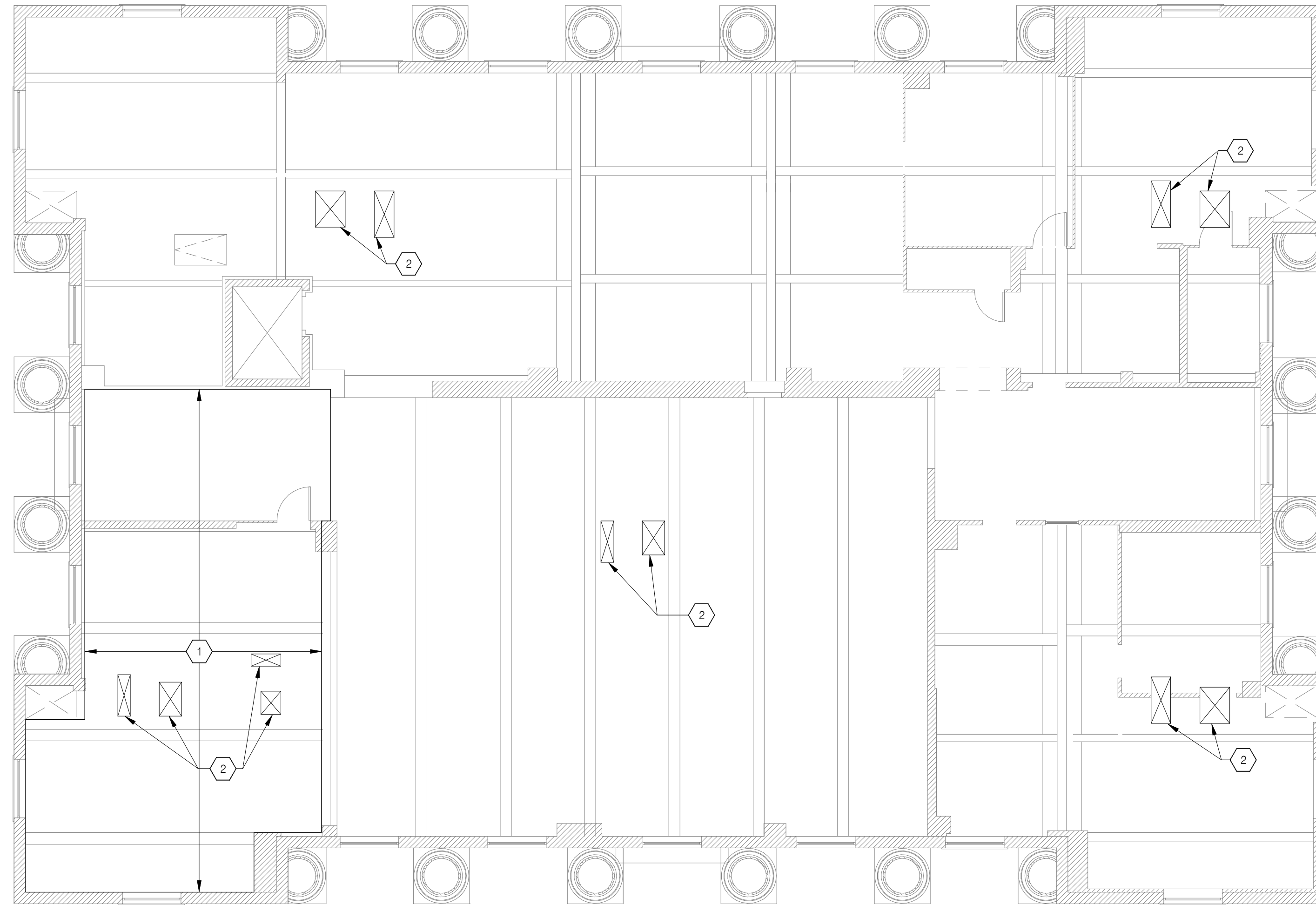
SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET OF	SEQ #

XREFS:

PLAN NOTES:

- 1 MISCELLANEOUS CONCRETE REPAIR:
 EPOXY INJECT CRACKS; REMOVE AND REPLACE UNSOUND
 CONCRETE PER 6 & 8/53.03. ADDITIONAL AREAS LIKELY TO BE
 DISCOVERED DURING DEMOLITION PHASE.
- 2 MECHANICAL CHASE PENETRATIONS - REF. PLANS FOR REINFORCING
 AND ARCH. AND MEP FOR ADDNL. INFO.

NOTE:
 BACKGROUNDS ARE BASED ON LIMITED ORIGINAL CONSTRUCTION
 DOCUMENTS. HOWEVER ORIGINAL STRUCTURAL DRAWINGS WERE
 NOT AVAILABLE. FOUNDATIONS AND SOME STRUCTURAL FRAMING
 ARE ASSUMPTIONS. CONTRACTOR SHALL FIELD VERIFY EXISTING
 CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY
 DISCREPANCIES.



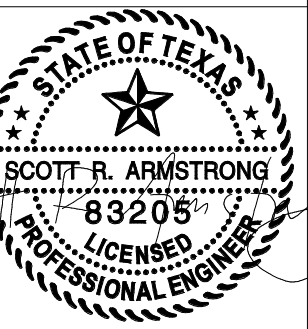
1 THIRD FLOOR PLAN - REFLECTED CEILING

1/8" = 1'-0"

SYMBOL	DESCRIPTION	DATE	APPROVED

KOMATSU
 ARCHITECTURE

ISSUED FOR CONSTRUCTION



03/11/2022

POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION
 101 W. Church Street
 Livingston, TX 77351

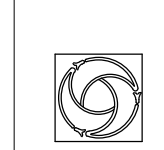
THIRD FLOOR REFLECTED CEILING PLAN

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET OF SEQ #	

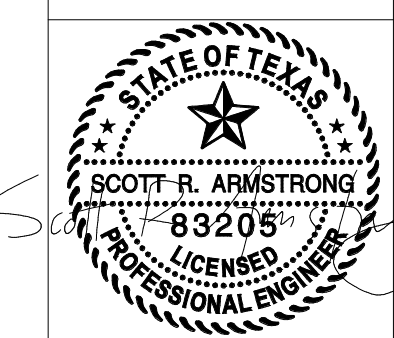
S1.14

SYM.	DESCRIPTION	DATE	APPROVED

KOMATSU
ARCHITECTURE



ISSUED FOR CONSTRUCTION



03/11/2022

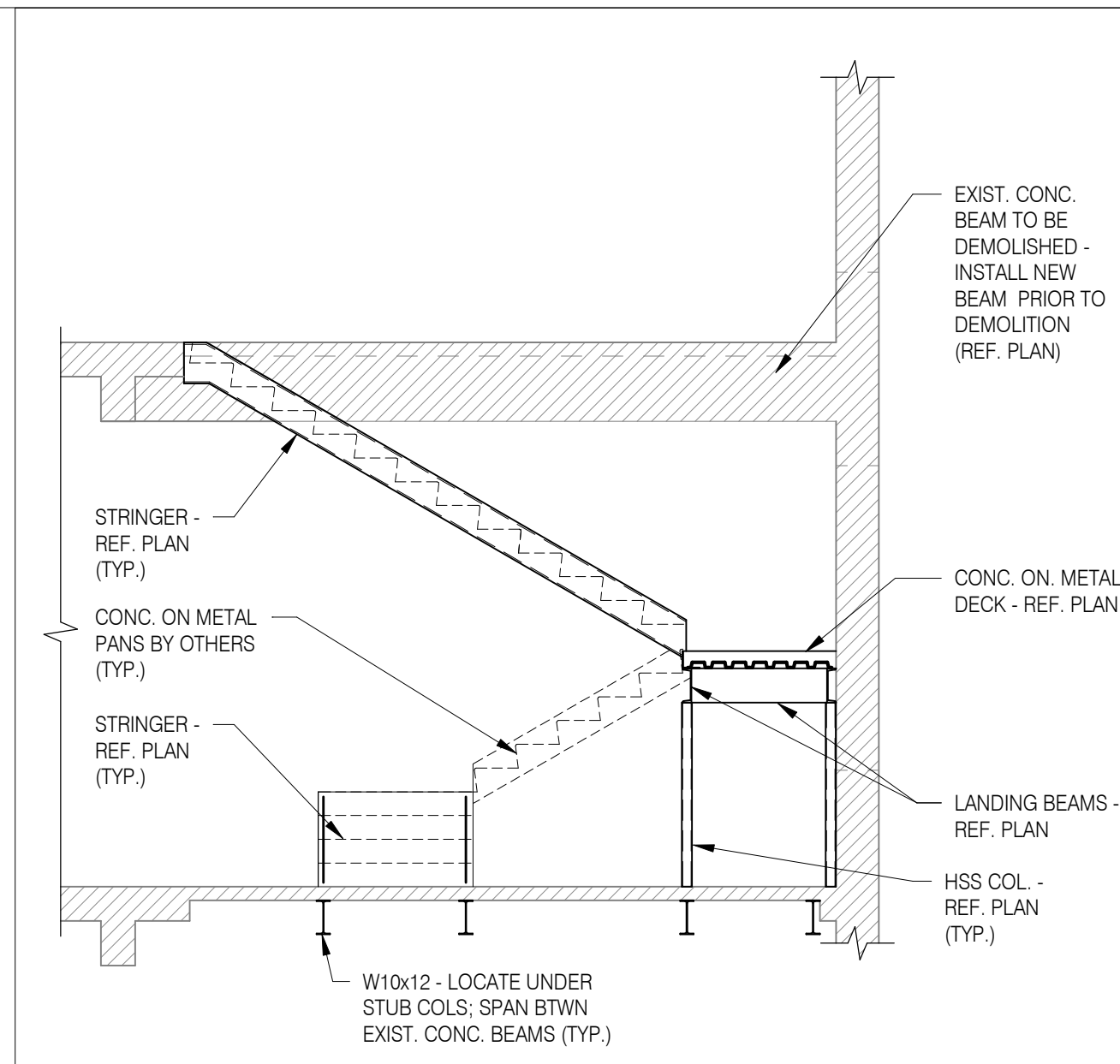
**POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION**

101 W. Church Street
Livingston, TX 77351

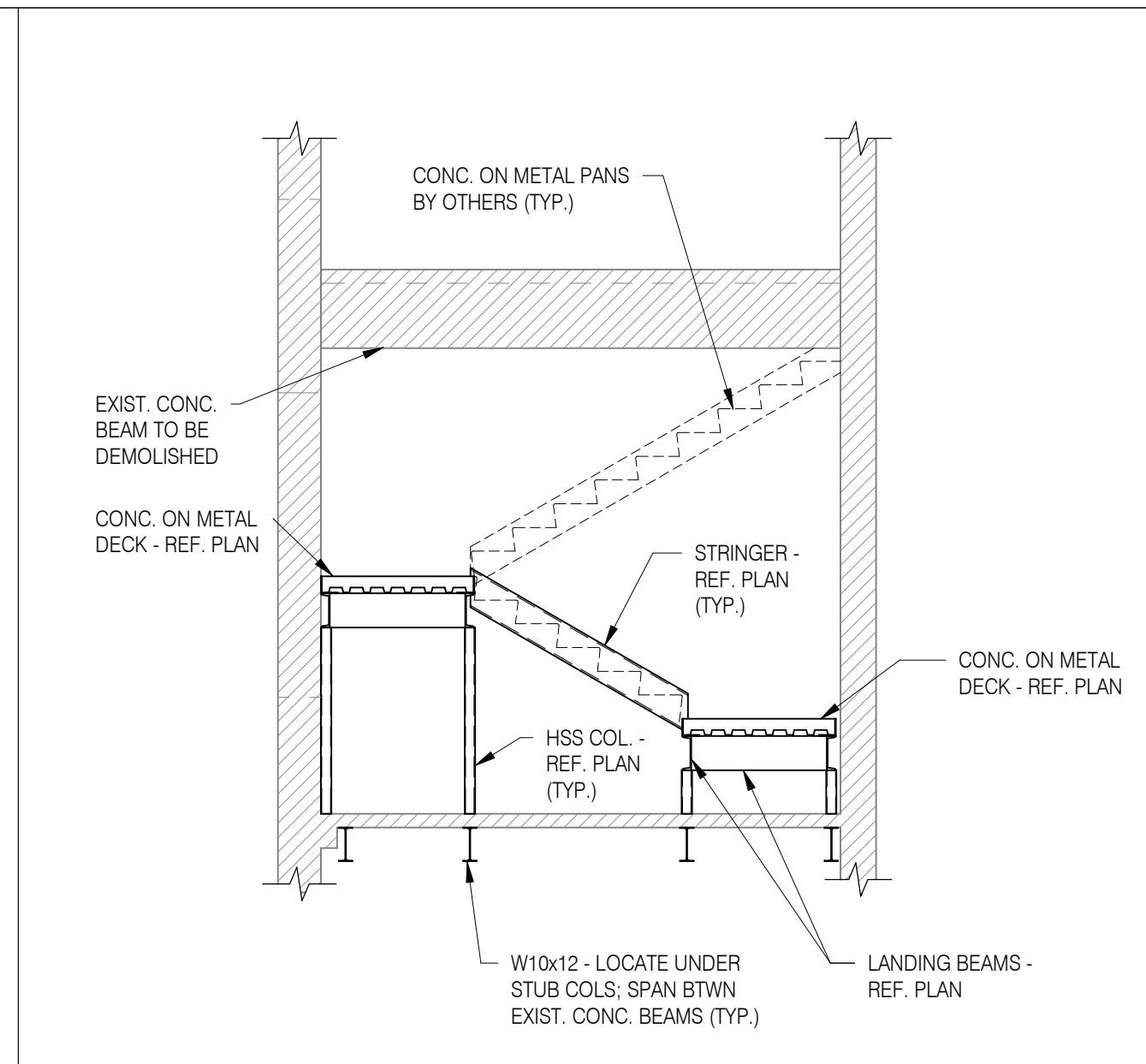
STAIR FRAMING PLANS & DETAILS

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET OF SEQ #	

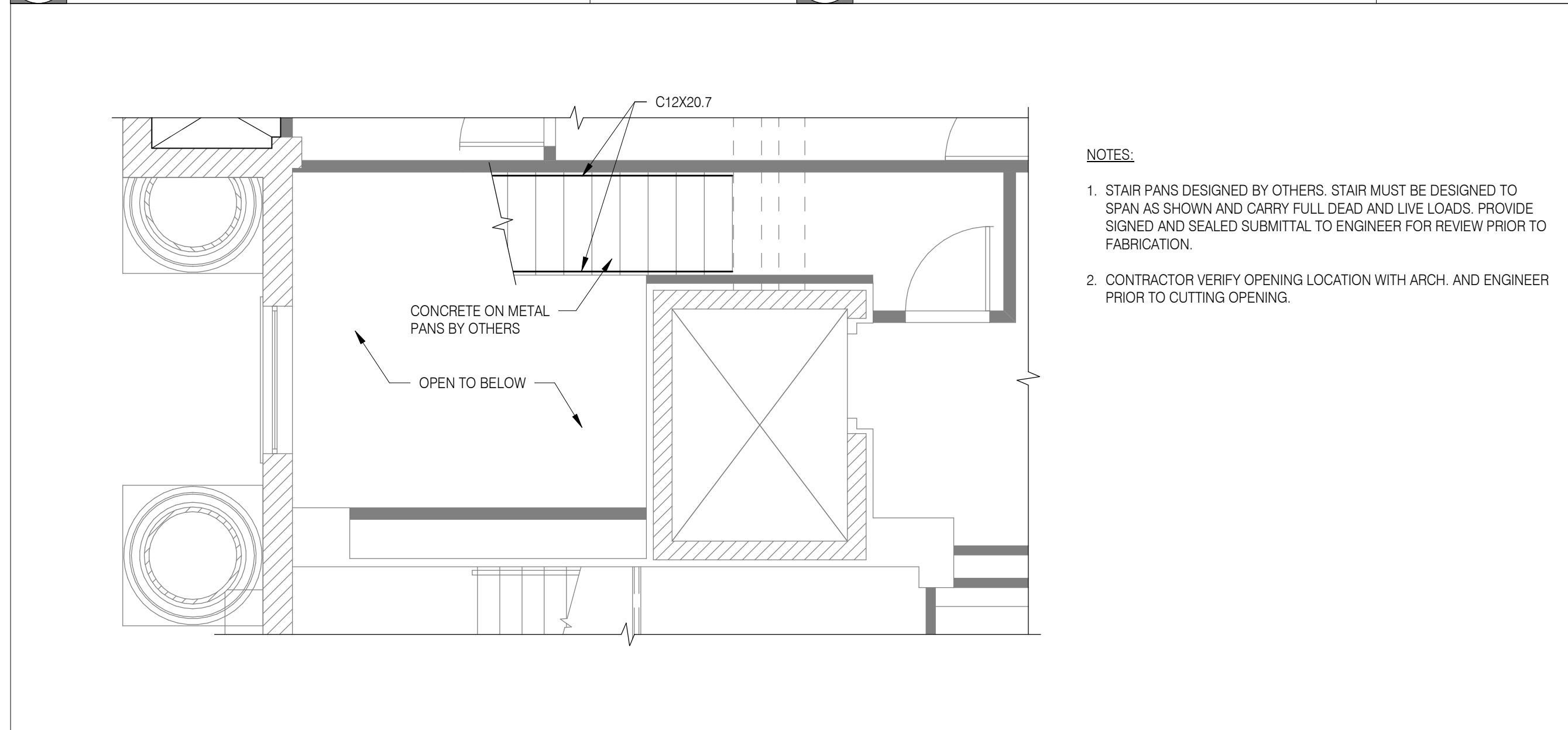
S1.21



4 STAIR SECTION 1/4" = 1'-0"

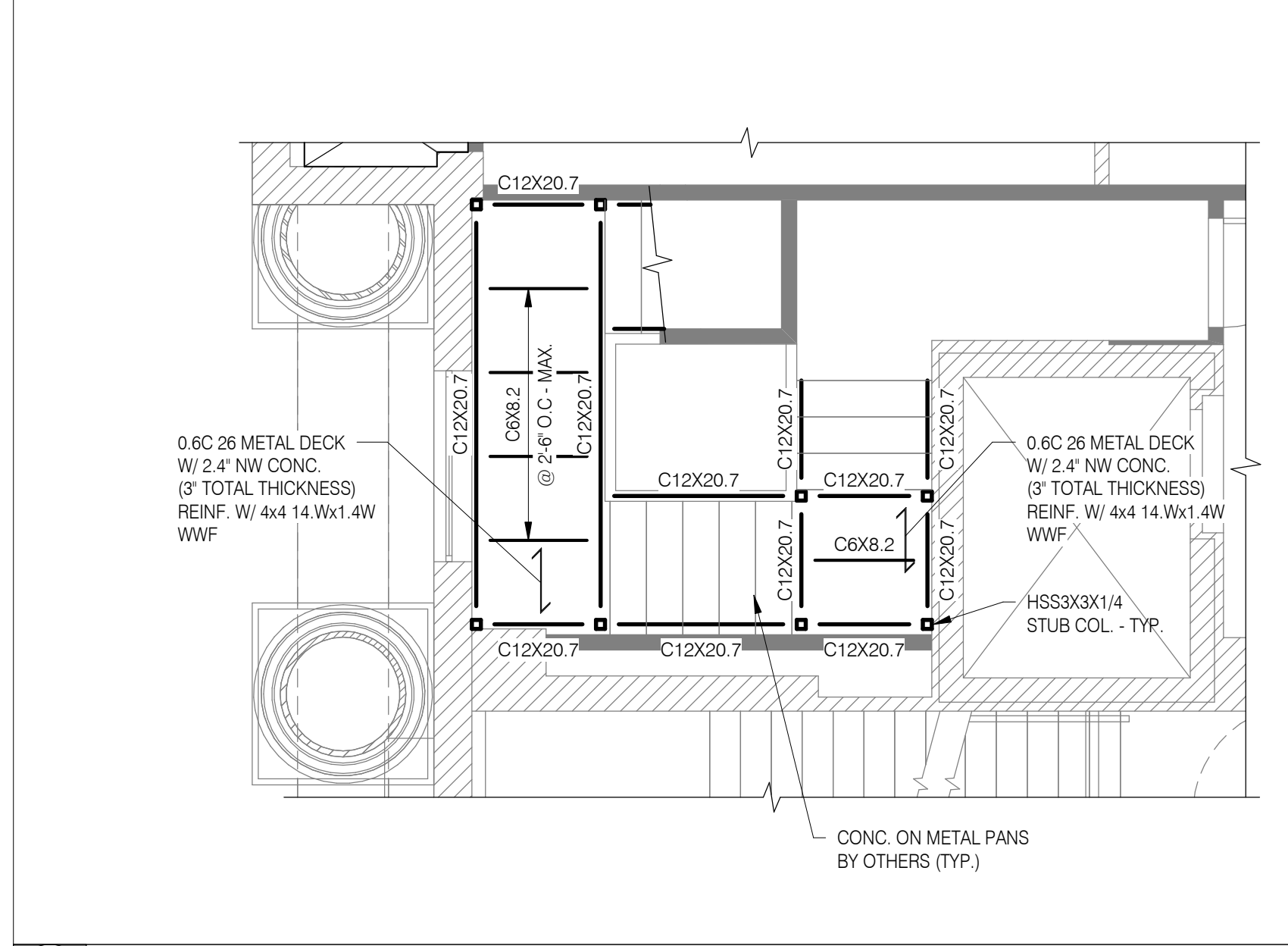


3 STAIR SECTION 1/4" = 1'-0"



- NOTES:**
1. STAIR PANS DESIGNED BY OTHERS. STAIR MUST BE DESIGNED TO SPAN AS SHOWN AND CARRY FULL DEAD AND LIVE LOADS. PROVIDE SIGNED AND SEALED SUBMITTAL TO ENGINEER FOR REVIEW PRIOR TO FABRICATION.
 2. CONTRACTOR VERIFY OPENING LOCATION WITH ARCH. AND ENGINEER PRIOR TO CUTTING OPENING.

2 THIRD FLOOR - ENLARGED STAIR PLAN 1/4" = 1'-0"

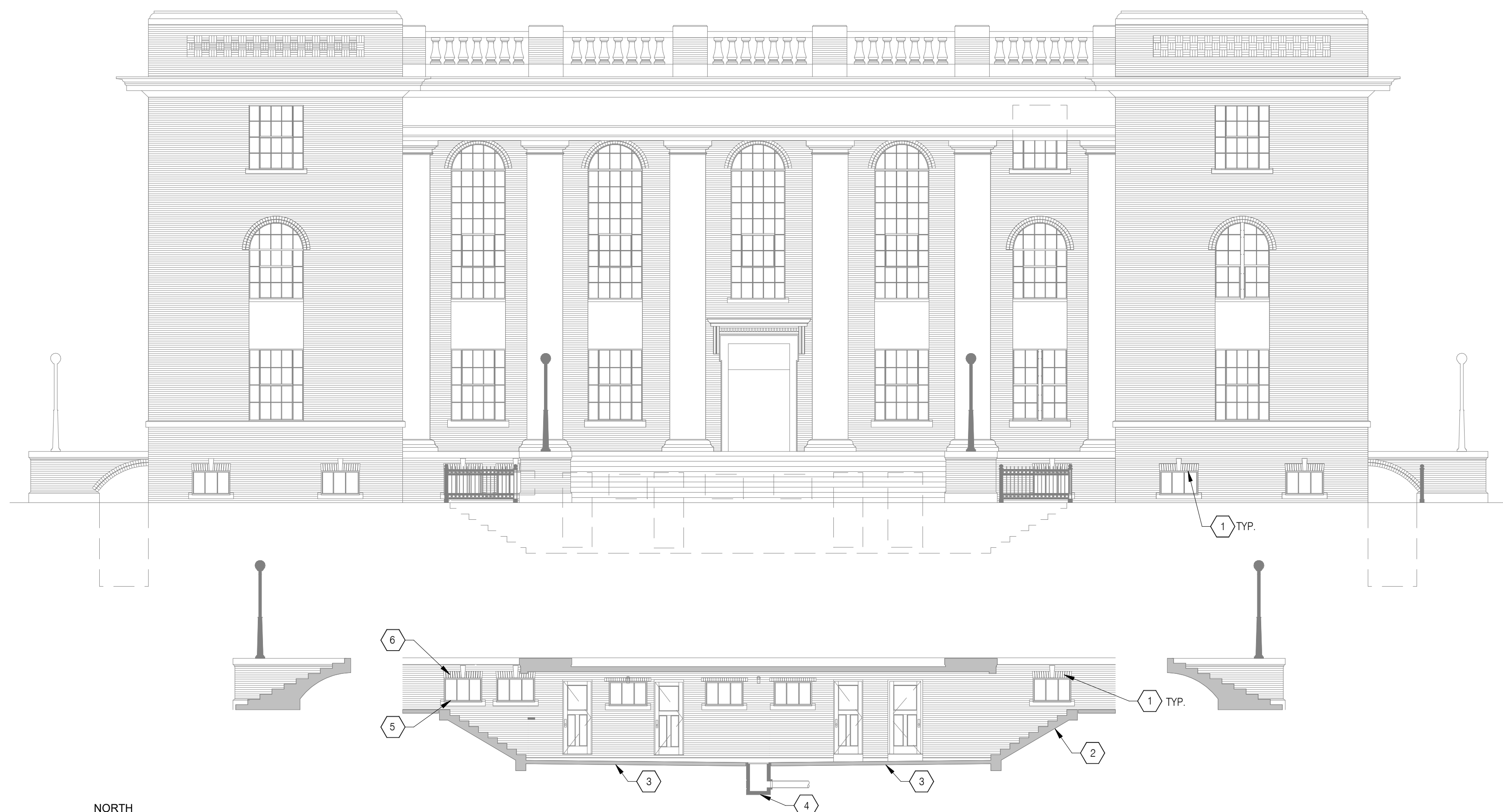


- NOTES:**
1. STAIR PANS DESIGNED BY OTHERS. STAIR MUST BE DESIGNED TO SPAN AS SHOWN AND CARRY FULL DEAD AND LIVE LOADS. PROVIDE SIGNED AND SEALED SUBMITTAL TO ENGINEER FOR REVIEW PRIOR TO FABRICATION.
 2. CONTRACTOR VERIFY OPENING LOCATION WITH ARCH. AND ENGINEER PRIOR TO CUTTING OPENING.

1 SECOND FLOOR - ENLARGED STAIR PLAN 1/4" = 1'-0"

XREFS:

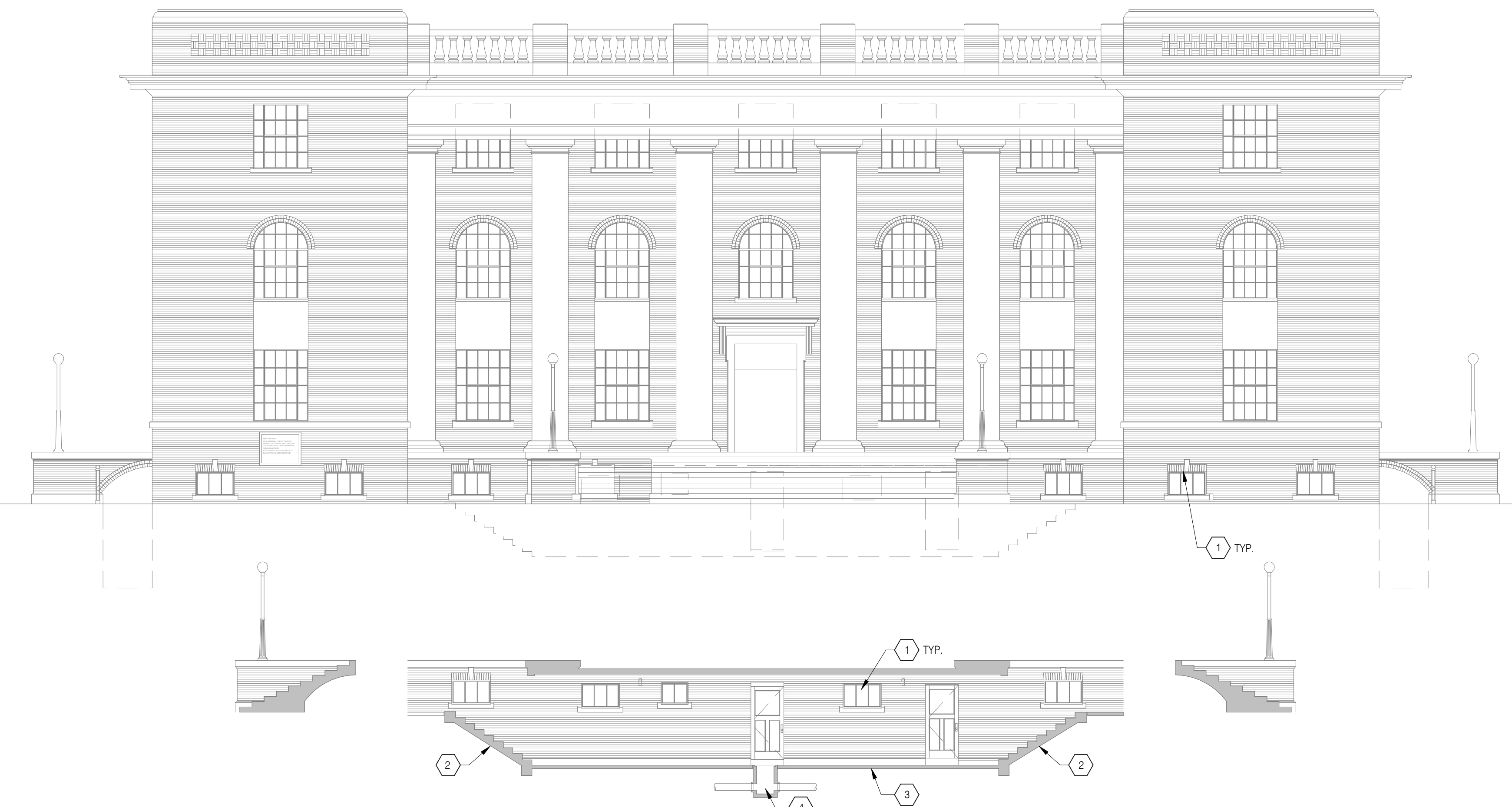
- NOTES:
- 1 CLEAN AND COAT LINTELS WITH MILD TO MODERATE CORROSION. REF. ARCH. FOR ADDITIONAL INFORMATION.
 - 2 RECONSTRUCT STAIRS TO MATCH EXISTING. REF. 5/S3.02.
 - 3 REPLACE CONCRETE SLAB ON GRADE. REF. 1/S3.02.
 - 4 AREA DRAIN - REFER TO CIVIL.
 - 5 CRACKED/DELAMINATED CONCRETE. REMOVE AND REPLACE UNSOUND CONCRETE. REF. 6 & 8/S3.03.
 - 6 REMOVE MASONRY AS REQUIRED. REPLACE SEVERELY CORRODED STEEL LINTEL.



2 SOUTH ELEVATION - RESTORATION

1/8" = 1'-0"

- NOTES:
- 1 CLEAN AND COAT LINTELS WITH MILD TO MODERATE CORROSION. REF. ARCH. FOR ADDITIONAL INFORMATION.
 - 2 RECONSTRUCT STAIRS TO MATCH EXISTING. REF. 5/S3.02.
 - 3 REPLACE CONCRETE SLAB ON GRADE. REF. 1/S3.02.
 - 4 AREA DRAIN - REFER TO CIVIL.

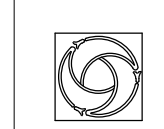


1 NORTH ELEVATION - RESTORATION

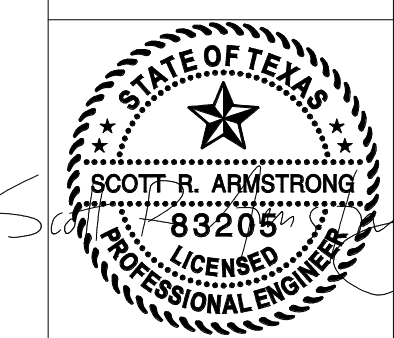
1/8" = 1'-0"

SYMBOL	DESCRIPTION	DATE	APPROVED

KOMATSU
ARCHITECTURE



ISSUED FOR CONSTRUCTION



03/11/2022

POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

NORTH & SOUTH ELEVATIONS

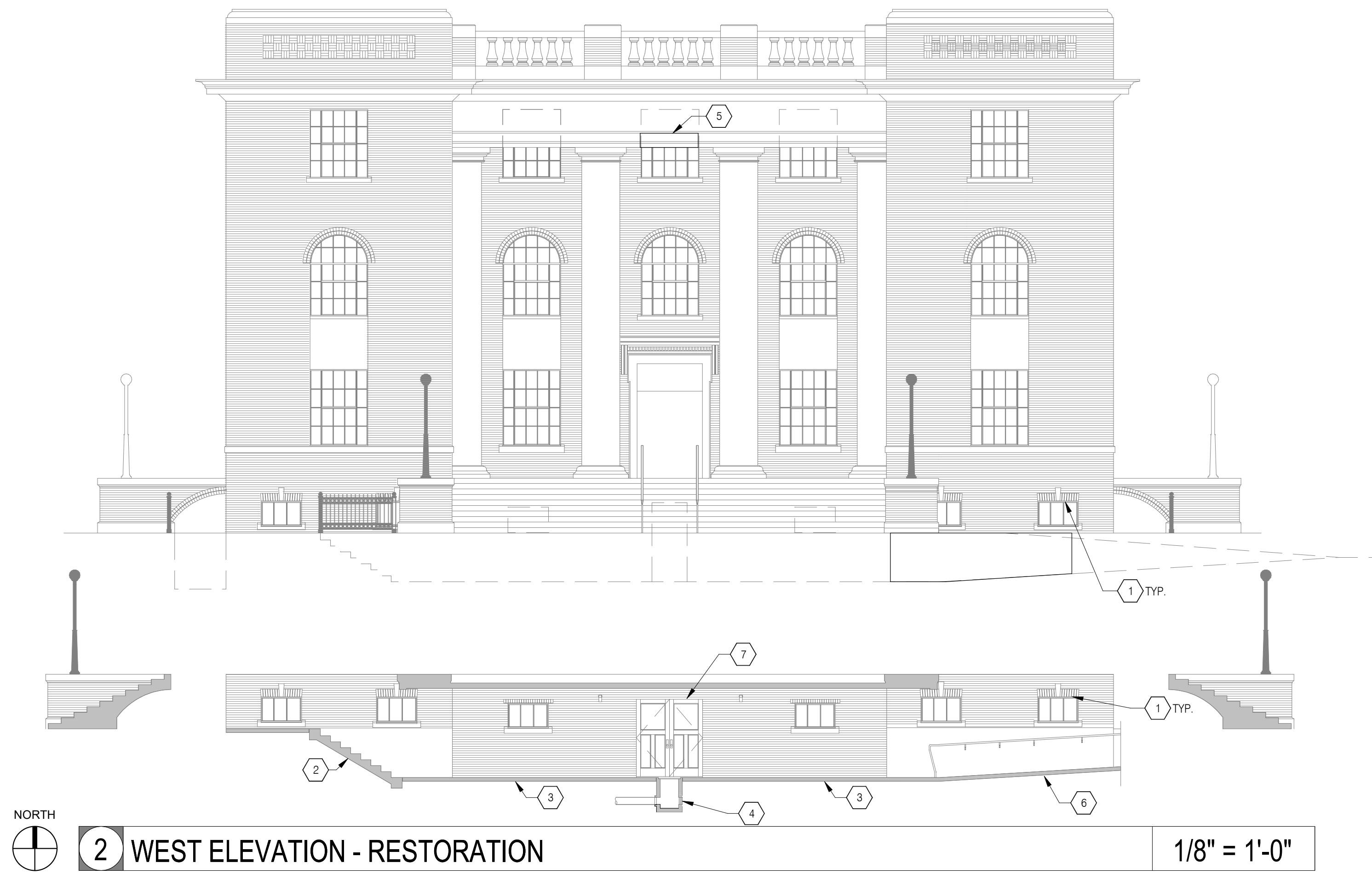
SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET OF SEQ #	

S2.01

XREFS:

NOTES:

- 1 CLEAN AND COAT LINTELS WITH MILD TO MODERATE CORROSION. REF. ARCH. FOR ADDITIONAL INFORMATION.
- 2 RECONSTRUCT STAIRS TO MATCH EXISTING. REF. 5/S3.02.
- 3 REPLACE CONCRETE SLAB ON GRADE. REF. 1/S3.02.
- 4 AREA DRAIN - REFER TO CIVIL.
- 5 SPALLED/DELAMINATED CONCRETE: REMOVE AND REPLACE UNSOUND CONCRETE. REF. 6 & 8/S3.03.
- 6 RECONSTRUCT RAMP TO MATCH EXISTING. REF. 6/S3.02 SIM.
- 7 LINTEL AT REVISED MASONRY OPENING. REF. 5/S5.01 AND ARCH.

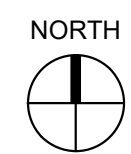
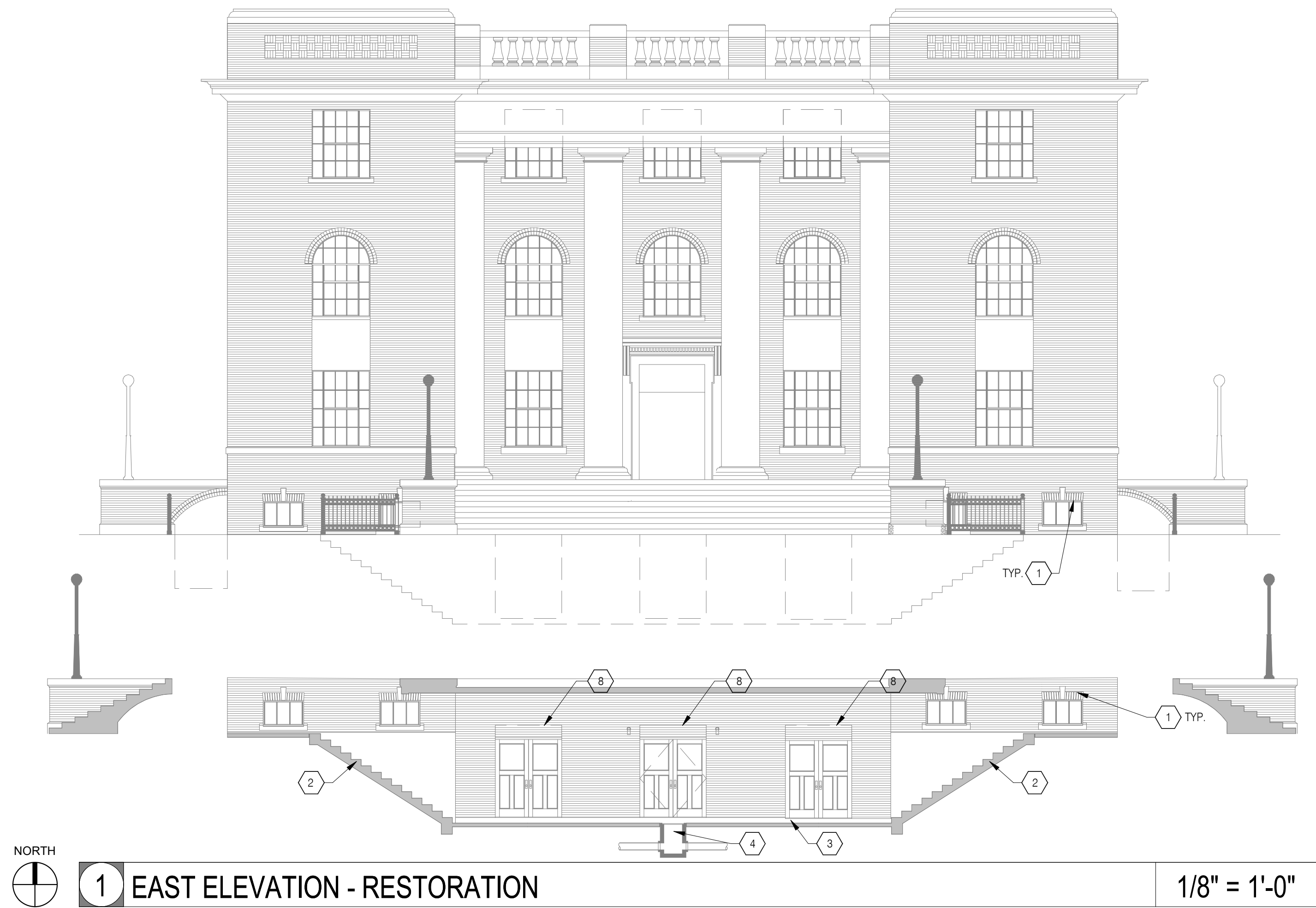


2 WEST ELEVATION - RESTORATION

1/8" = 1'-0"

NOTES:

- 1 CLEAN AND COAT LINTELS WITH MILD TO MODERATE CORROSION. REF. ARCH. FOR ADDITIONAL INFORMATION.
- 2 RECONSTRUCT STAIRS TO MATCH EXISTING. REF. 5/S3.02.
- 3 REPLACE CONCRETE SLAB ON GRADE. REF. 1/S3.02.
- 4 AREA DRAIN - REFER TO CIVIL.
- 5 NOT USED.
- 6 NOT USED.
- 7 NOT USED.
- 8 LINTEL AT REVISED MASONRY OPENING. REF. 6/S5.01 AND ARCH.

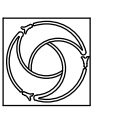


1 EAST ELEVATION - RESTORATION

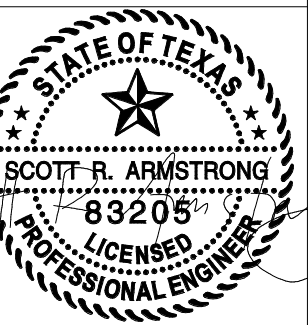
1/8" = 1'-0"

SYMBOL	DESCRIPTION	DATE	APPROVED

KOMATSU
ARCHITECTURE



ISSUED FOR CONSTRUCTION



03/11/2022

POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

EAST & WEST ELEVATIONS

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET OF SEQ #	

S2.02

SYMBOL	DESCRIPTION	DATE	APPROVED

KOMATSU
ARCHITECTURE

ISSUED FOR CONSTRUCTION



03/11/2022

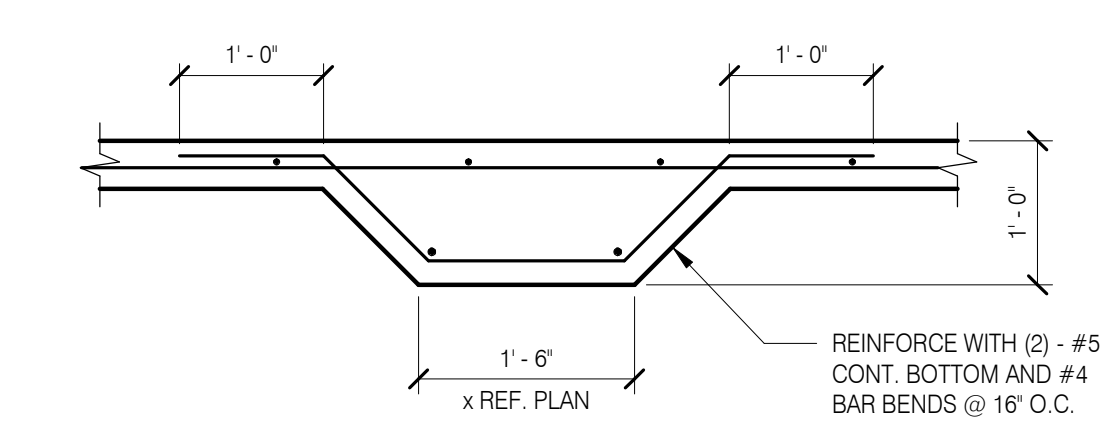
**POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION**

101 W. Church Street
Livingston, TX 77351

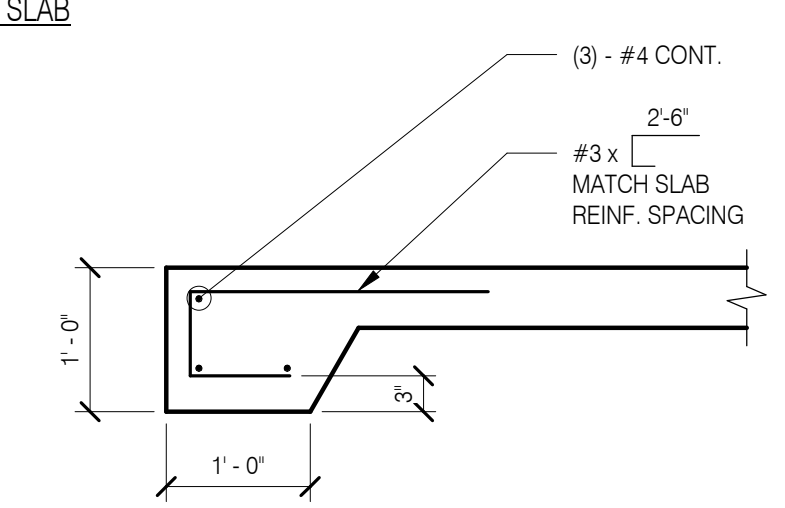
TYPICAL CONCRETE DETAILS

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET	OF SEQ #

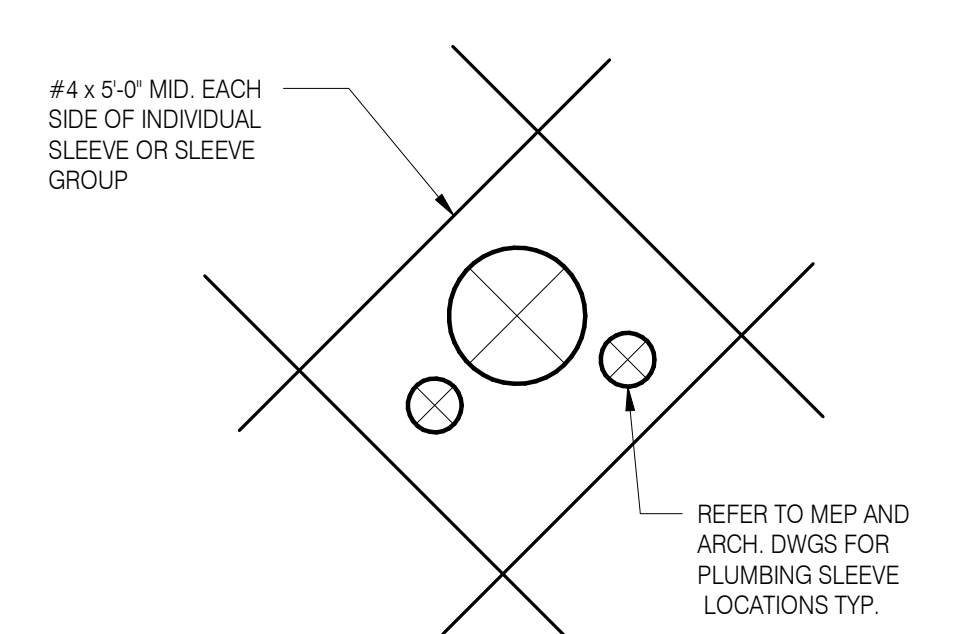
S3.02



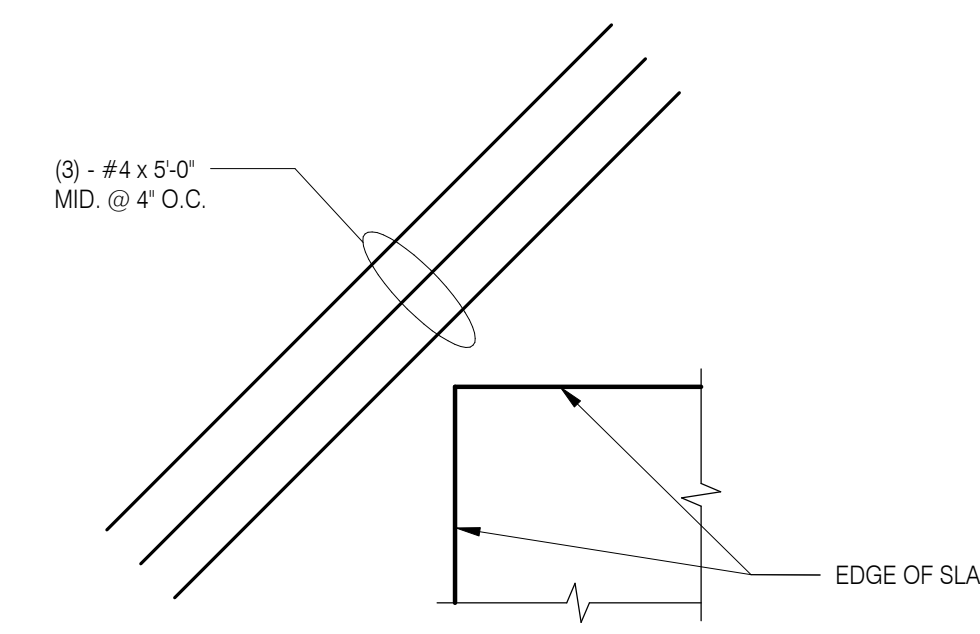
E. TYPICAL THICKENED SLAB



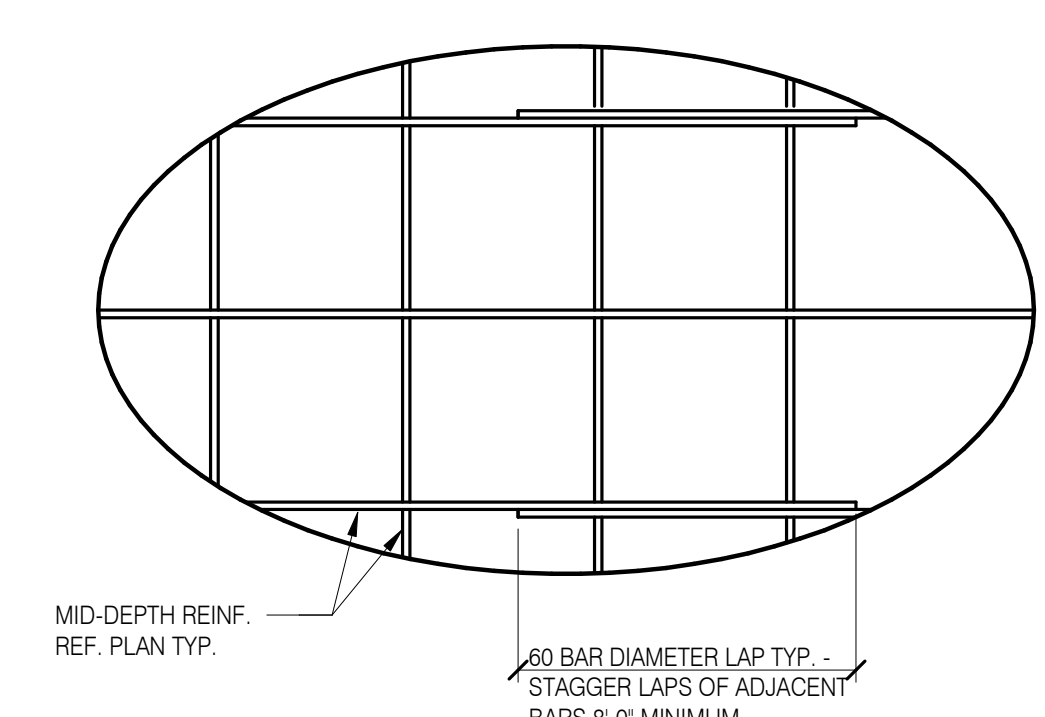
D. TYPICAL THICKENED SLAB EDGE



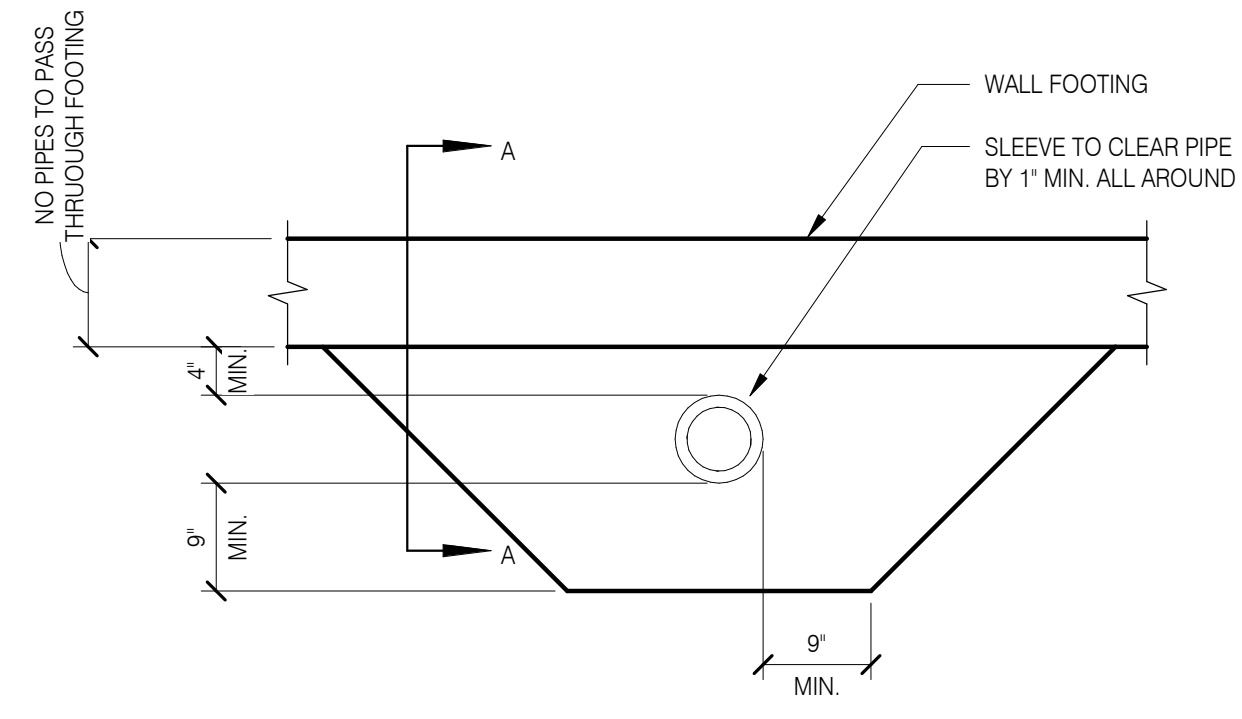
C. TYPICAL REINFORCEMENT AT SLAB PENETRATIONS



B. TYPICAL REINF. AT RE-ENTRANT CORNERS

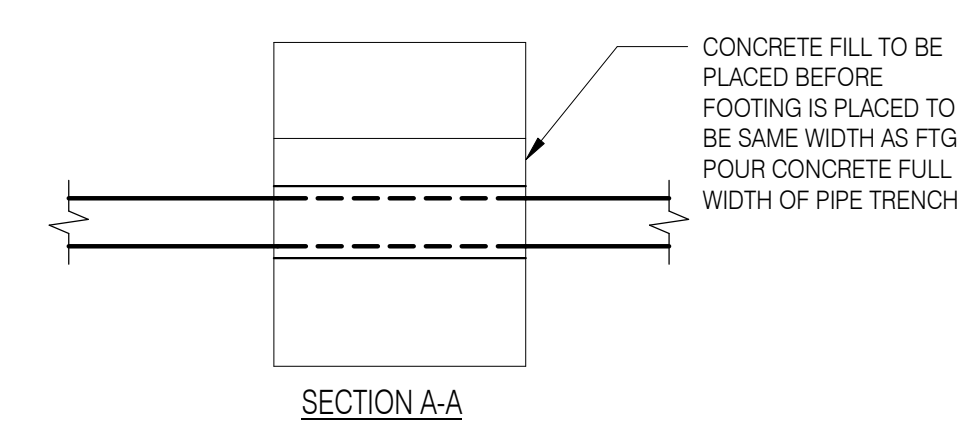


A. TYPICAL REINFORCEMENT

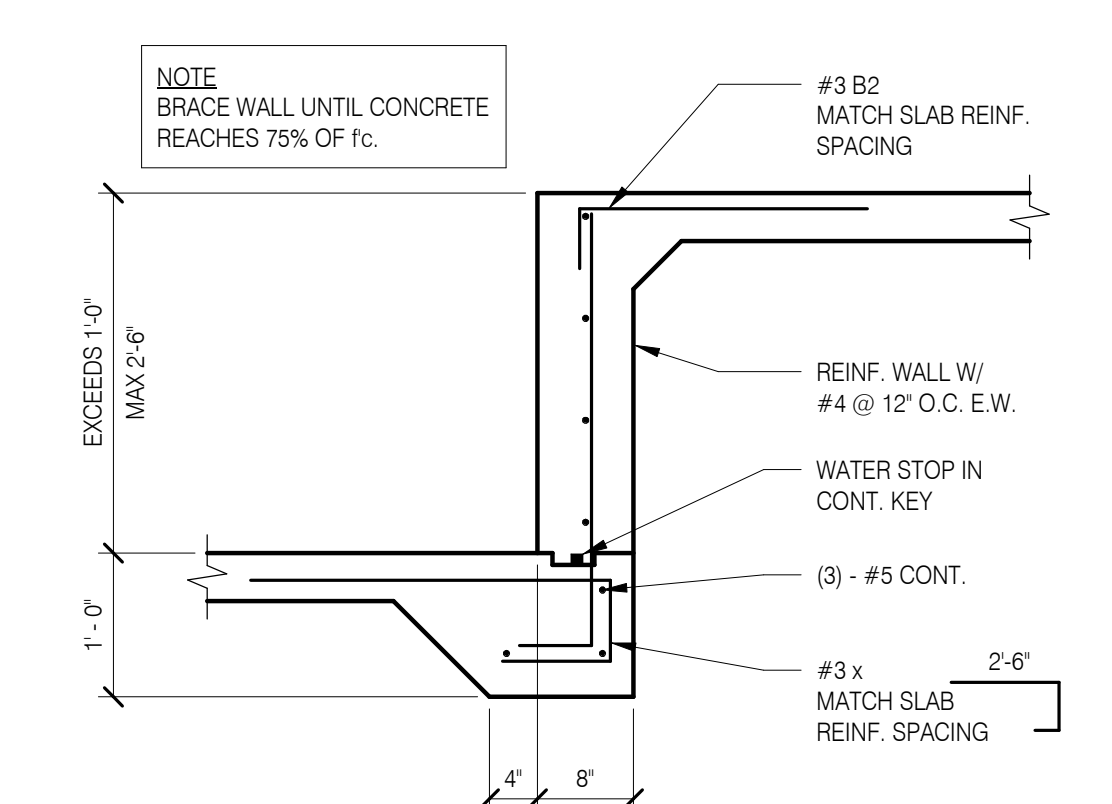


NOTE
NO PIPE SHALL PASS THROUGH OR BENEATH COLUMNS OR COLUMN FOOTINGS

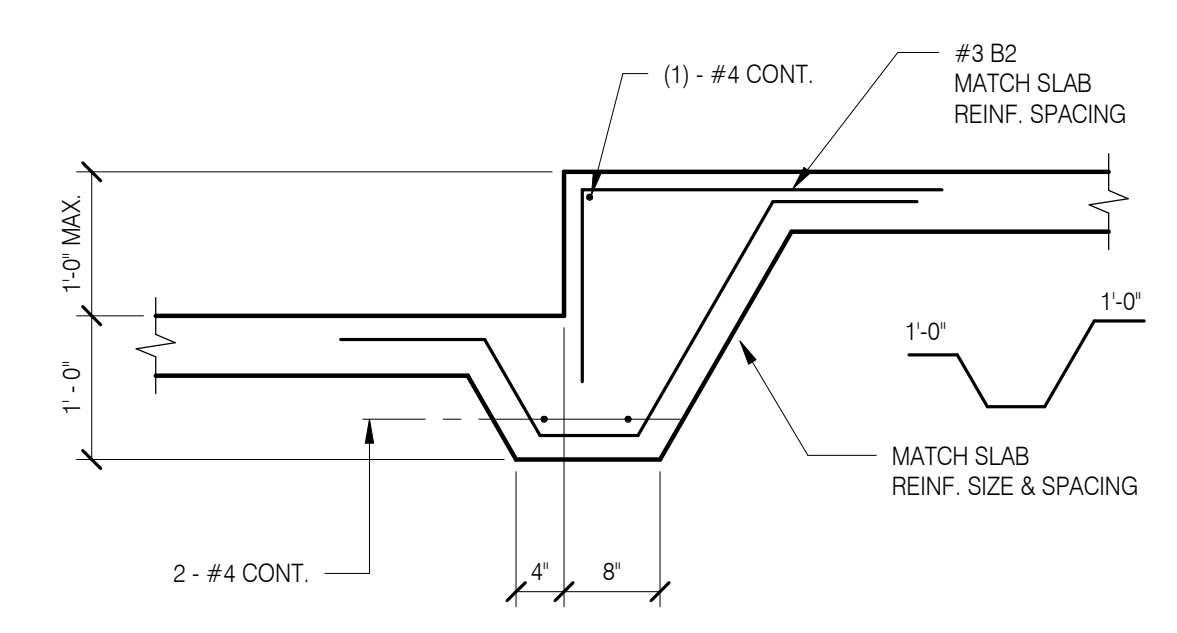
3 PIPE BELOW CONT. FOOTING 3/4" = 1'-0"



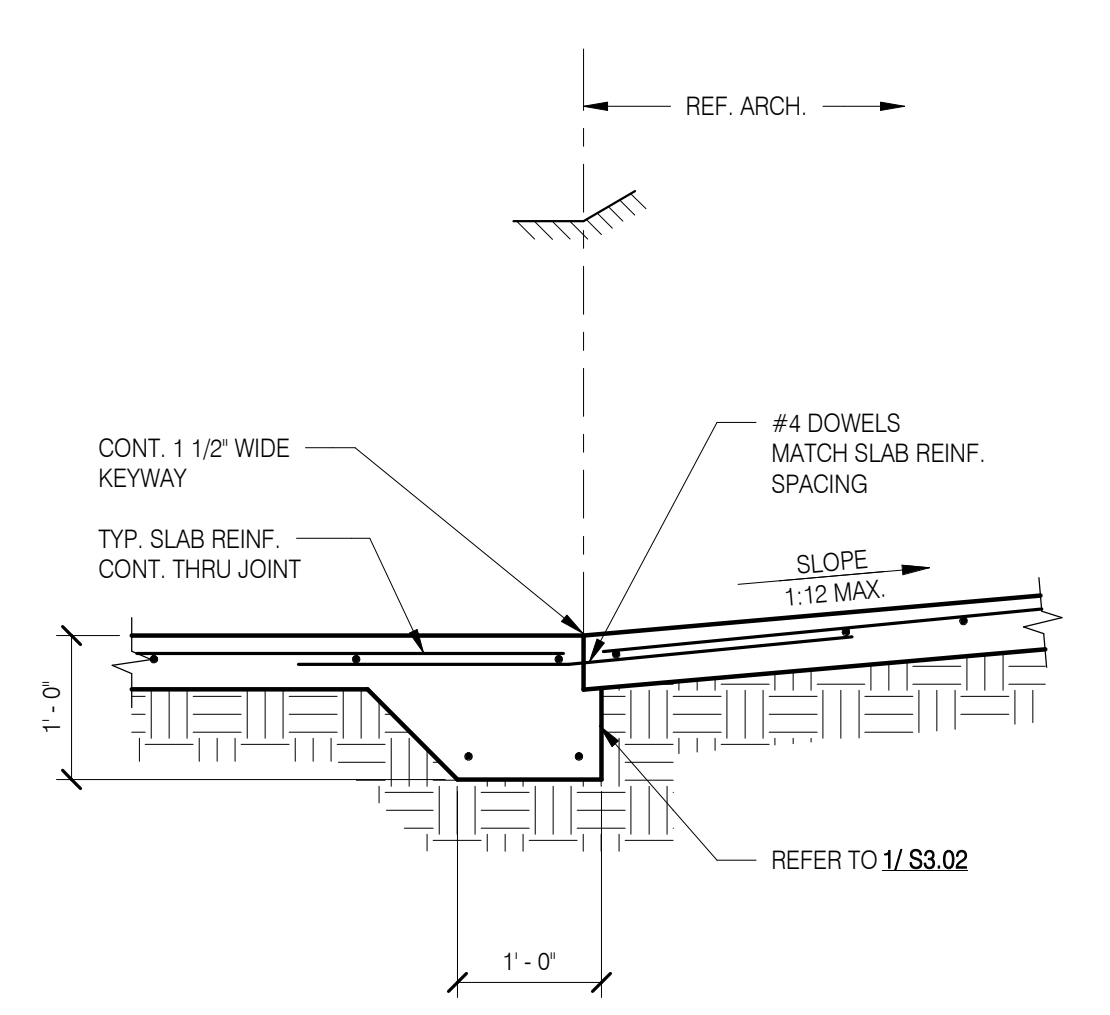
2 SOG DETAILS 3/4" = 1'-0"



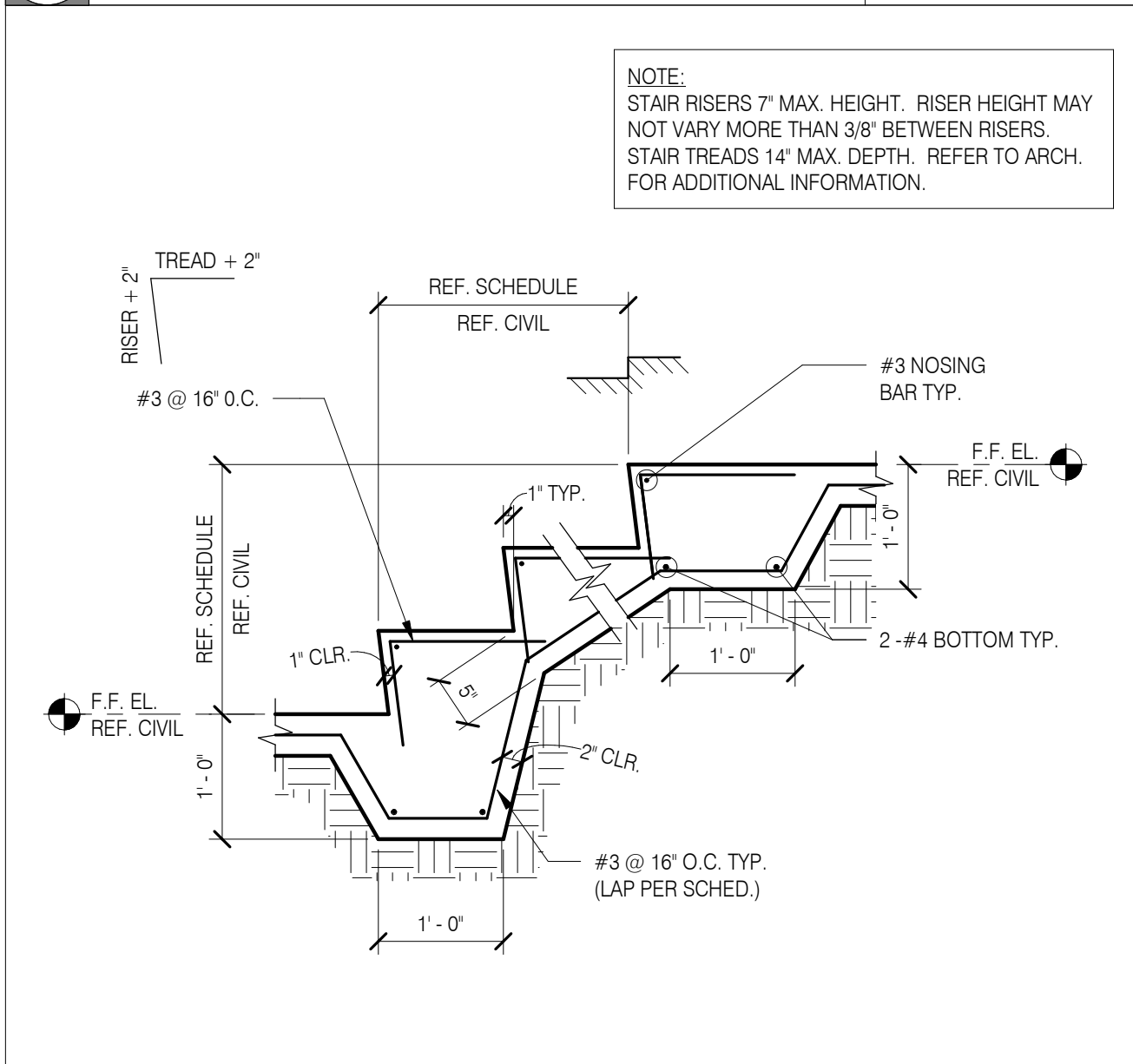
G. TYPICAL SLAB DROP - BTWN 1'-0" AND 5'-0"



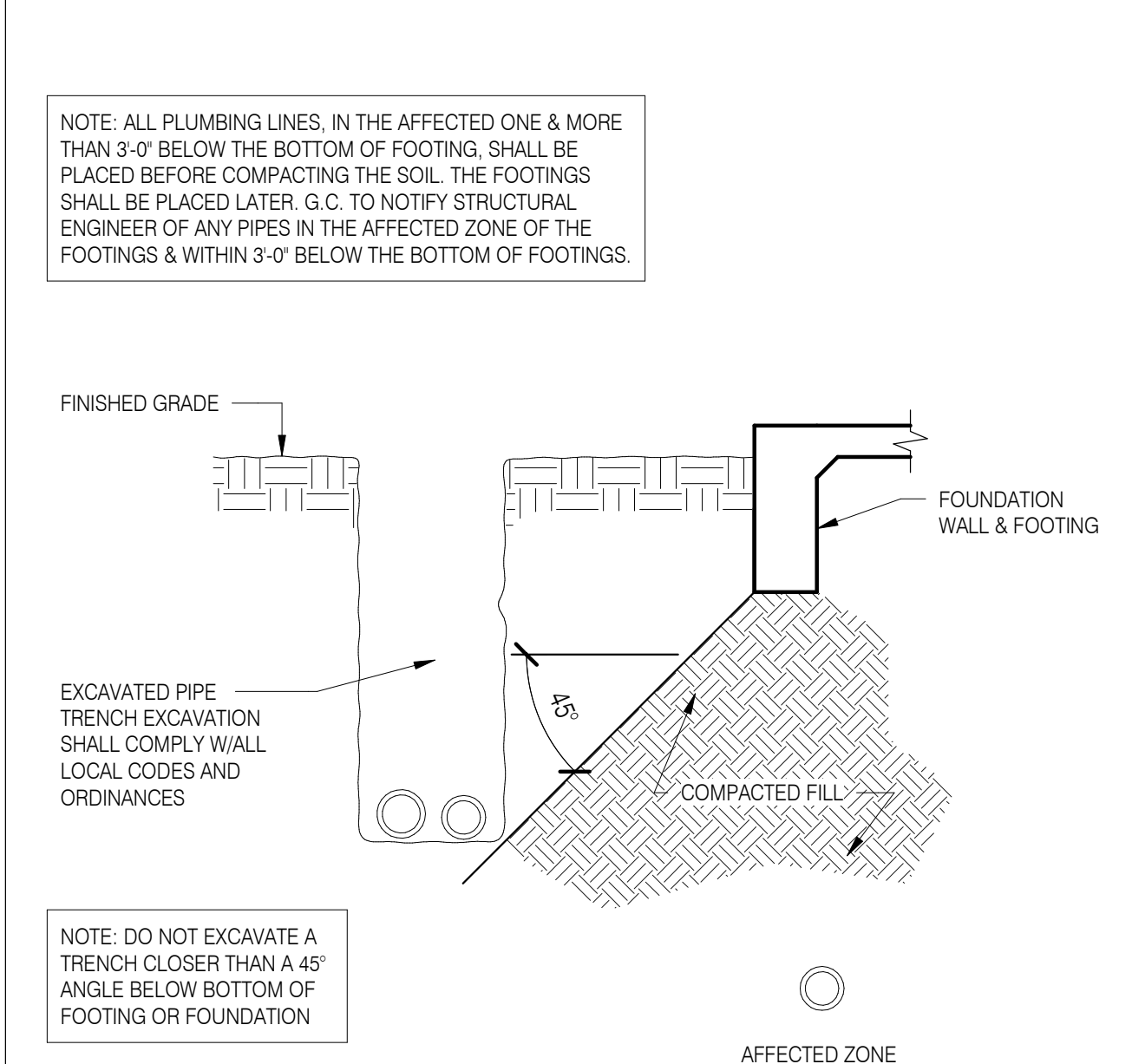
F. TYPICAL SLAB DROP - 1'-0" OR LESS



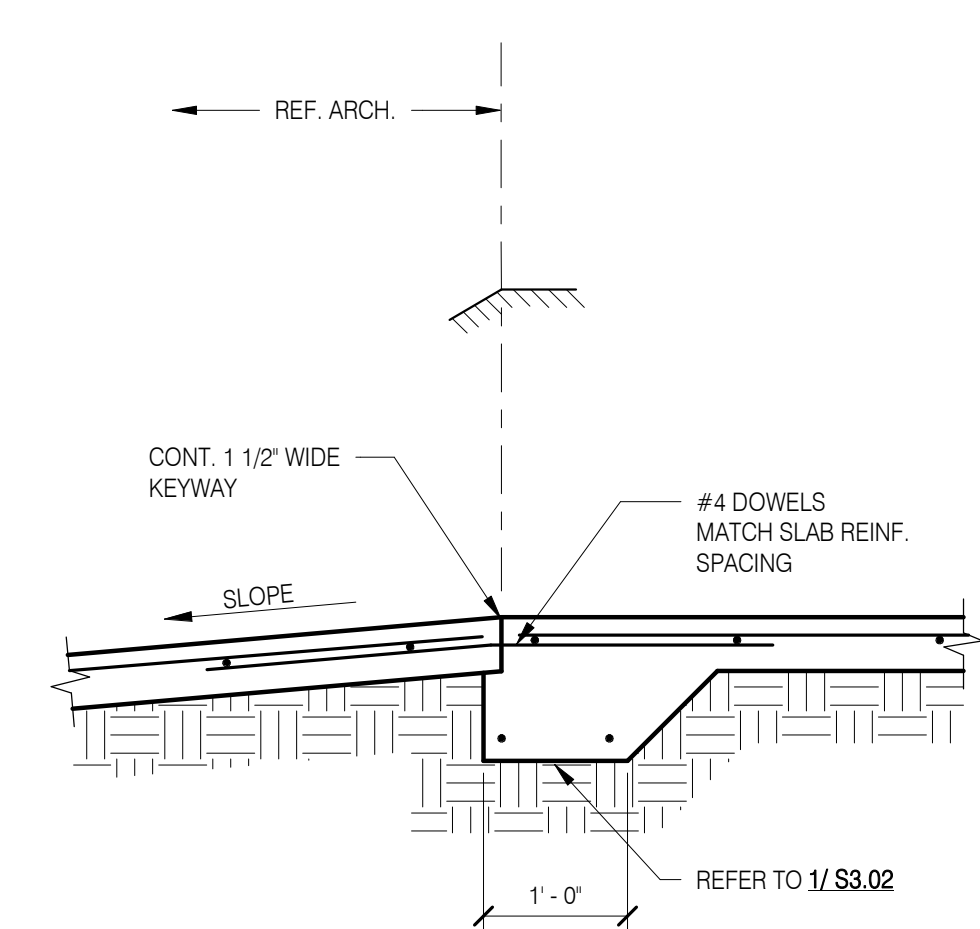
6 RAMP - SOG AT UP SLOPE 3/4" = 1'-0"



5 CONCRETE STAIR 3/4" = 1'-0"

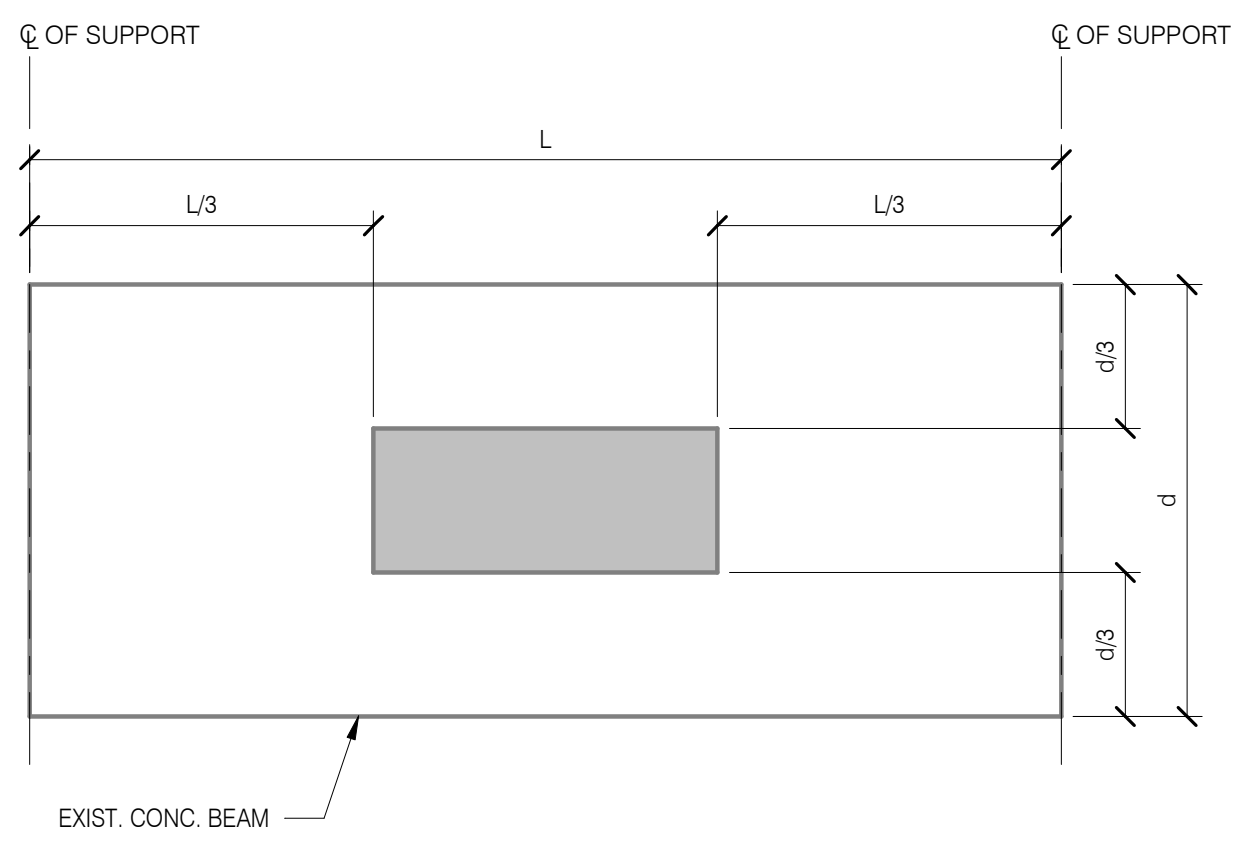


4 TRENCH PARALLEL TO FOOTING 3/4" = 1'-0"



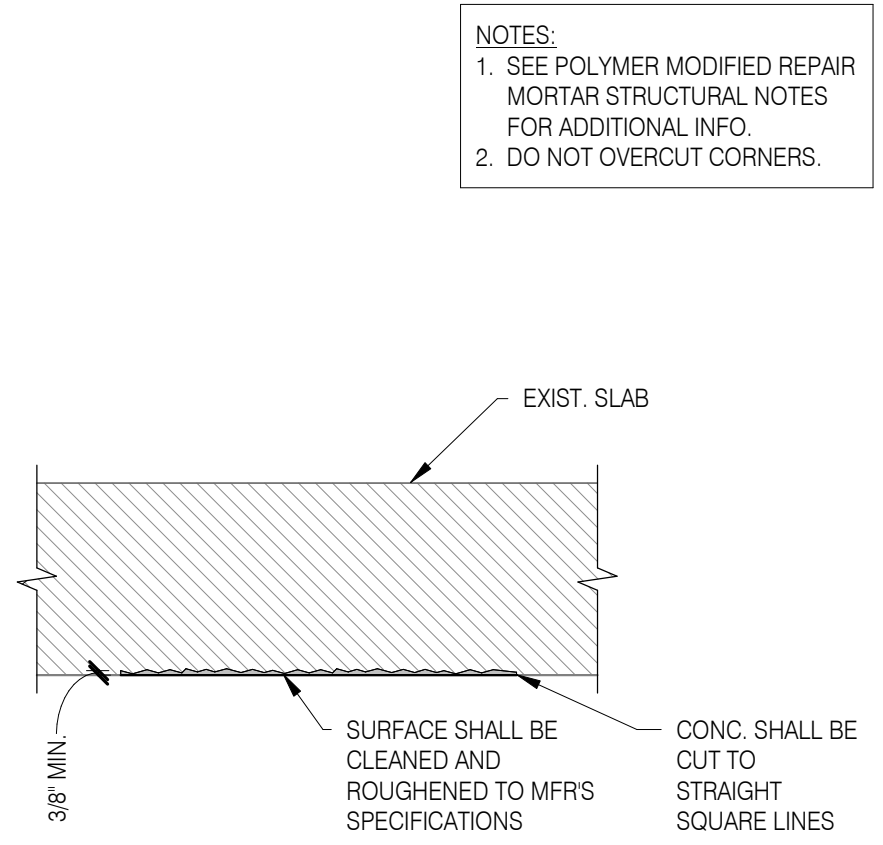
7 RAMP - SOG AT DOWN SLOPE 3/4" = 1'-0"

XREFS:



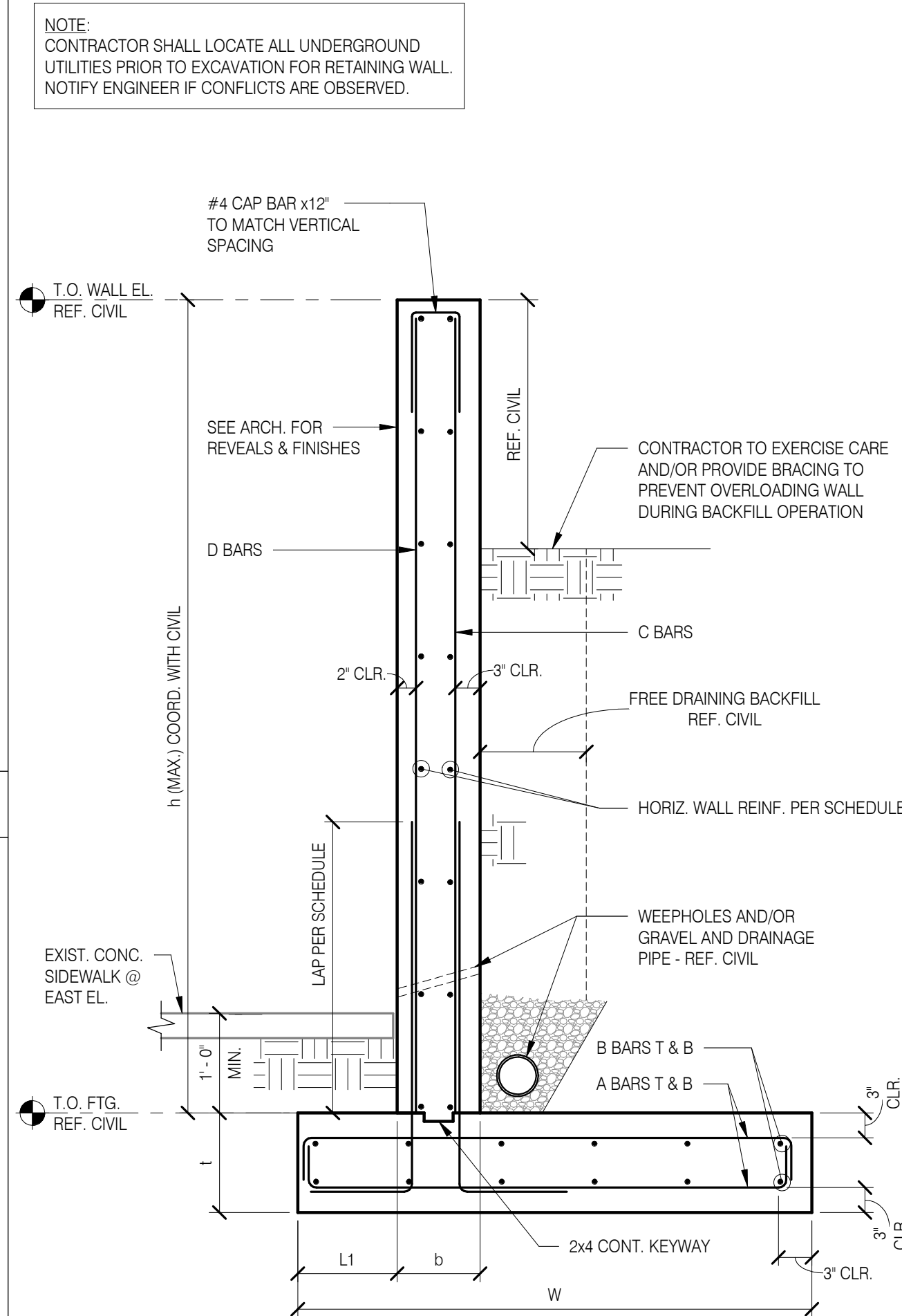
NOTES:
 1. LOCATE EXIST. REINF. IN PENETRATION AREA VIA NON-DESTRUCTIVE METHODS.
 2. PENETRATION MUST BE LOCATED IN SHADED AREA.
 3. MAXIMUM PENETRATION DIAMETER NOT TO EXCEED 3 INCHES.
 4. IF MULTIPLE PENETRATIONS ARE NECESSARY IN SINGLE BEAM SPAN, PENETRATIONS MUST BE LOCATED AT LEAST 3 TIMES THE EXISTING BEAM DEPTH APART.
 5. IF LARGER PENETRATIONS ARE DESIRED, SCAN BEAM TO LOCATE EXISTING REINFORCING STEEL SIZE AND LAYOUT ALONG BEAM SPAN. CHIP OUT AT A FEW LOCATIONS TO CONFIRM. PROVIDE DATA TO ENGINEER FOR ANALYSIS OF EXISTING STRUCTURE AND ANY ADDITIONAL INFORMATION REQUIRED FOR LARGER OPENING.

9 EXIST. BEAM PENETRATION NTS



NOTES:
 1. SEE POLYMER MODIFIED REPAIR MORTAR STRUCTURAL NOTES FOR ADDITIONAL INFO.
 2. DO NOT OVERCUT CORNERS.

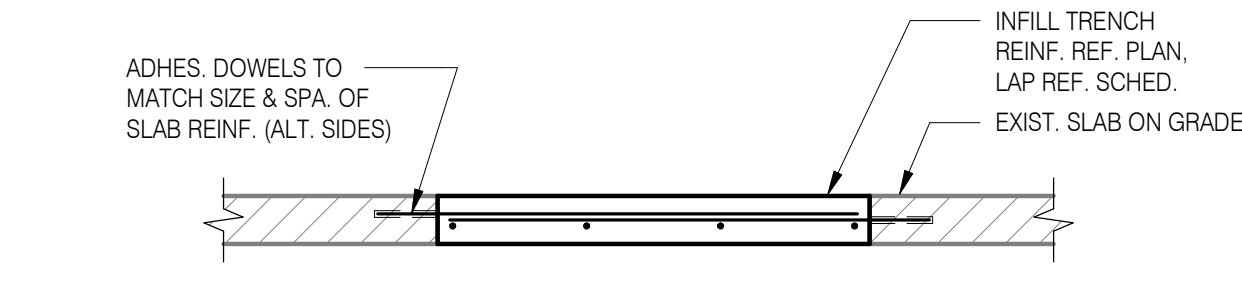
8 CONC. REPAIR DET. W/O REINF. NTS



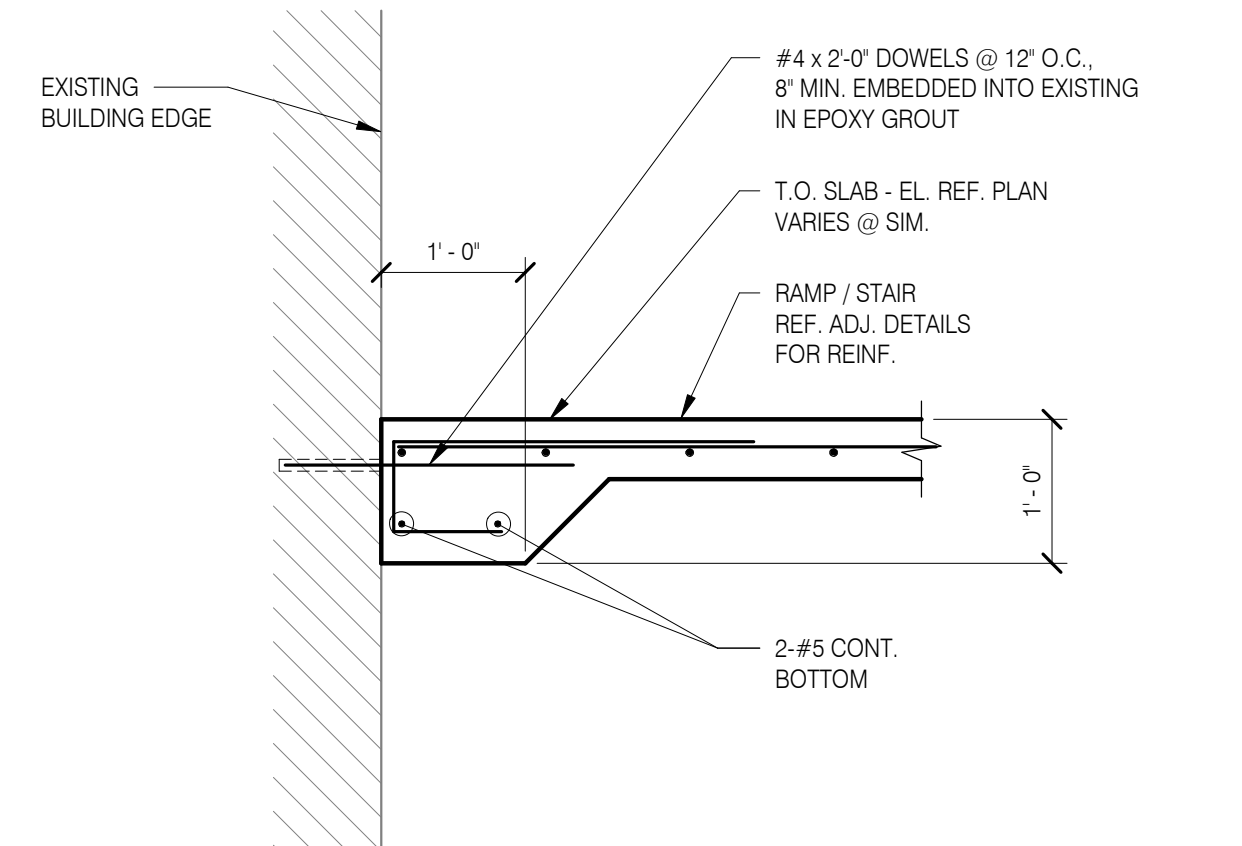
NOTE:
 CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION FOR RETAINING WALL. NOTIFY ENGINEER IF CONFLICTS ARE OBSERVED.

MARK	(h) MAX.	W	t	L1	FTG. REINF.		b	VERT. REINF.		HORIZ. WALL REINF.
					A	B		C	D	
RW-1	4'-0"	4'-6"	1'-6"	1'-0"	#5 @ 16"	#5 @ 16"	8"	#4 @ 12"	#4 @ 12"	#4 @ 12" O.C.
RW-2	4'-6"	6'-6"	1'-6"	0'-0"	#5 @ 16"	#5 @ 16"	8"	#4 @ 12"	#4 @ 12"	#4 @ 12" O.C.

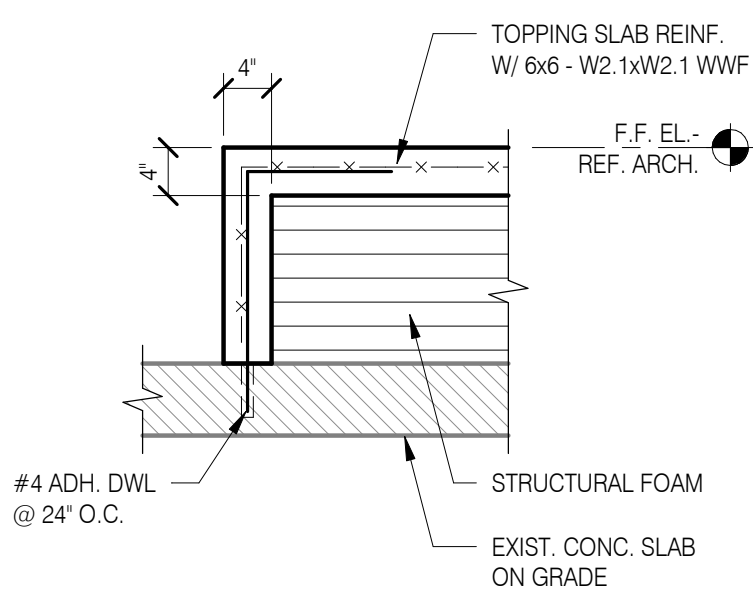
4 RETAINING WALL DETAIL 3/4" = 1'-0"



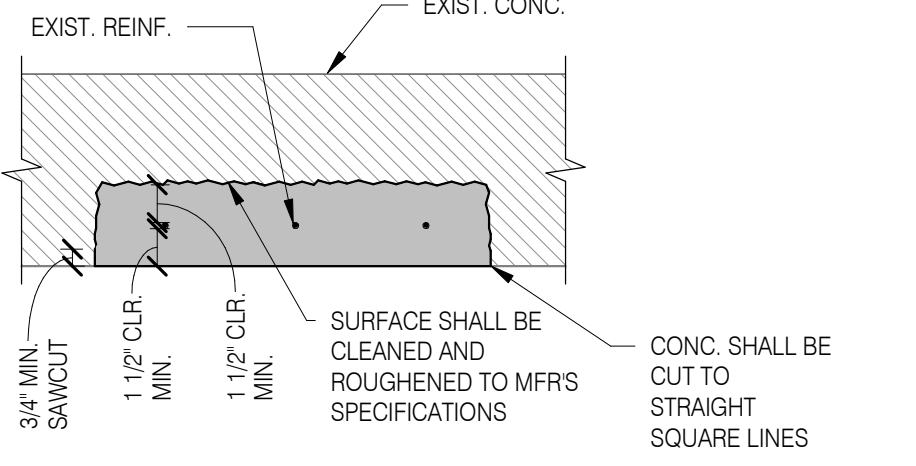
3 SLAB ON GRADE INFILL DETAIL 3/4" = 1'-0"



2 SLAB DOWEL INTO EXISTING 3/4" = 1'-0"

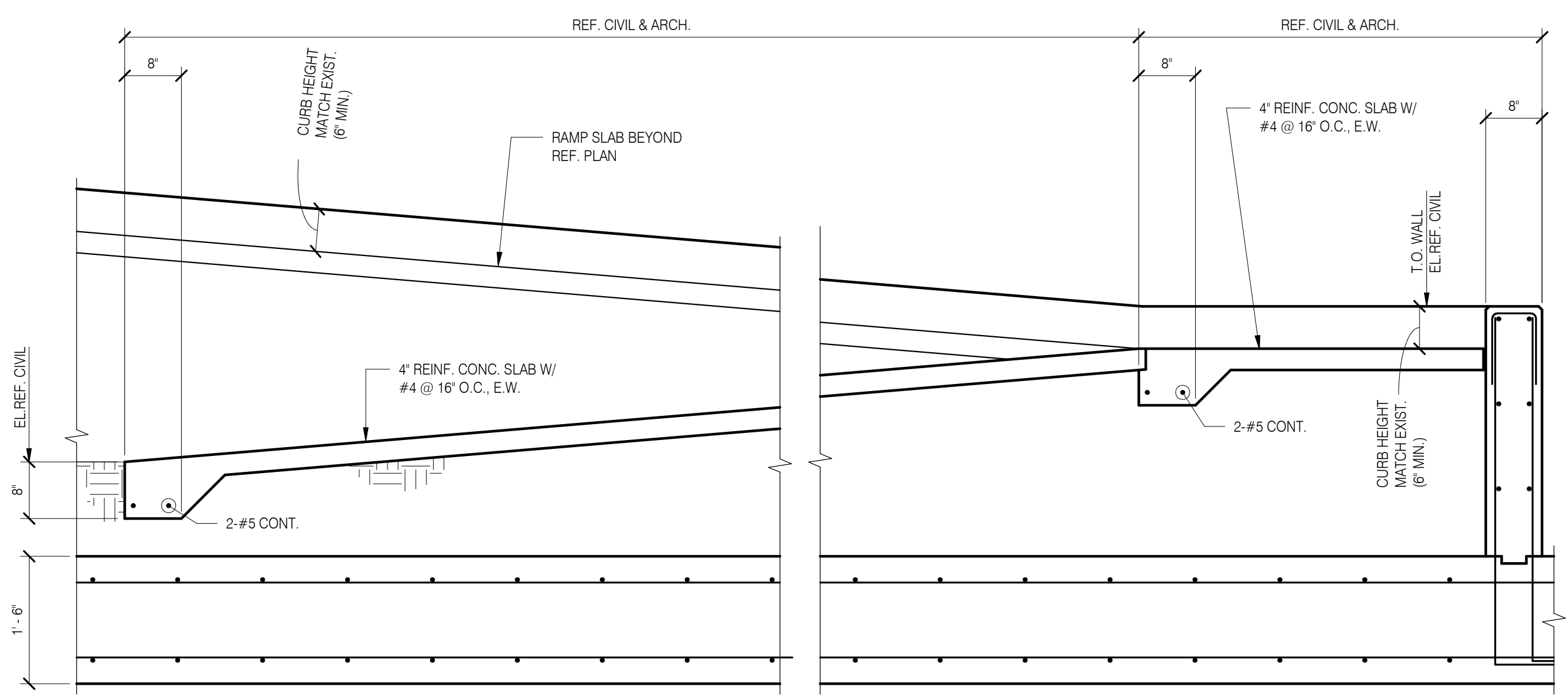


7 SLAB ON STRUCTURAL FOAM 3/4" = 1'-0"

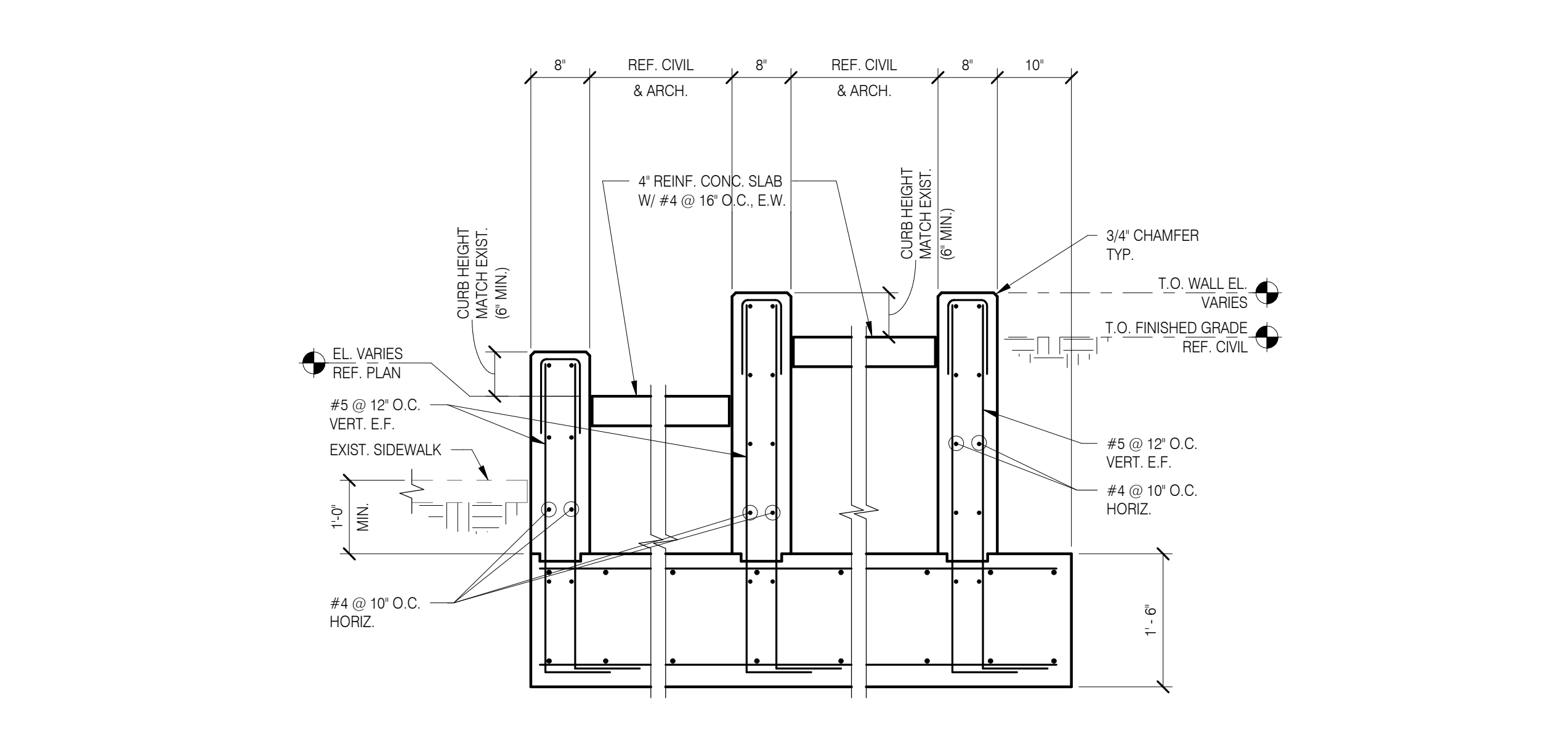


NOTES:
 1. SEE POLYMER MODIFIED REPAIR MORTAR STRUCTURAL NOTES FOR ADDITIONAL INFO.
 2. DO NOT OVERCUT CORNERS.

6 CONCRETE REPAIR DETAIL NTS



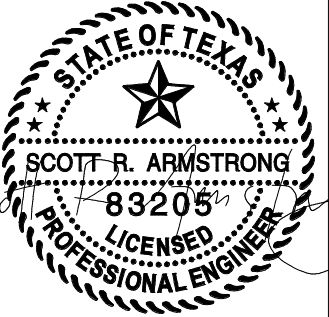
5 TYP. RAMP ELEVATION 3/4" = 1'-0"



1 RETAINING WALL DETAIL 3/4" = 1'-0"

NO.	DATE	APPROVED

KOMATSU
 ARCHITECTURE
 ISSUED FOR CONSTRUCTION



03/11/2022

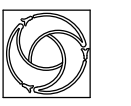
POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION
 101 W. Church Street
 Livingston, TX 77351
 TYPICAL CONCRETE DETAILS

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET	OF SEQ #

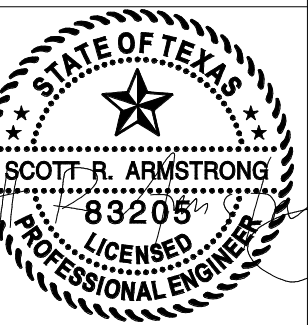
S3.03

SYMBOL	DESCRIPTION	DATE	APPROVED

KOMATSU
ARCHITECTURE



ISSUED FOR CONSTRUCTION

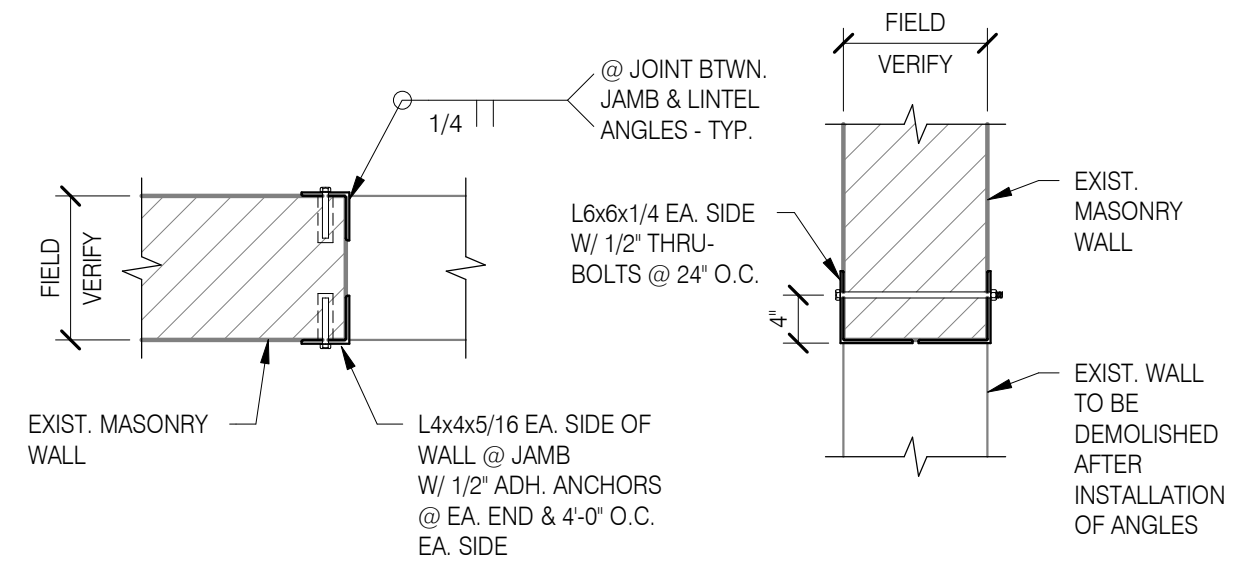


03/11/2022

**POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION**
101 W. Church Street
Livingston, TX 77351

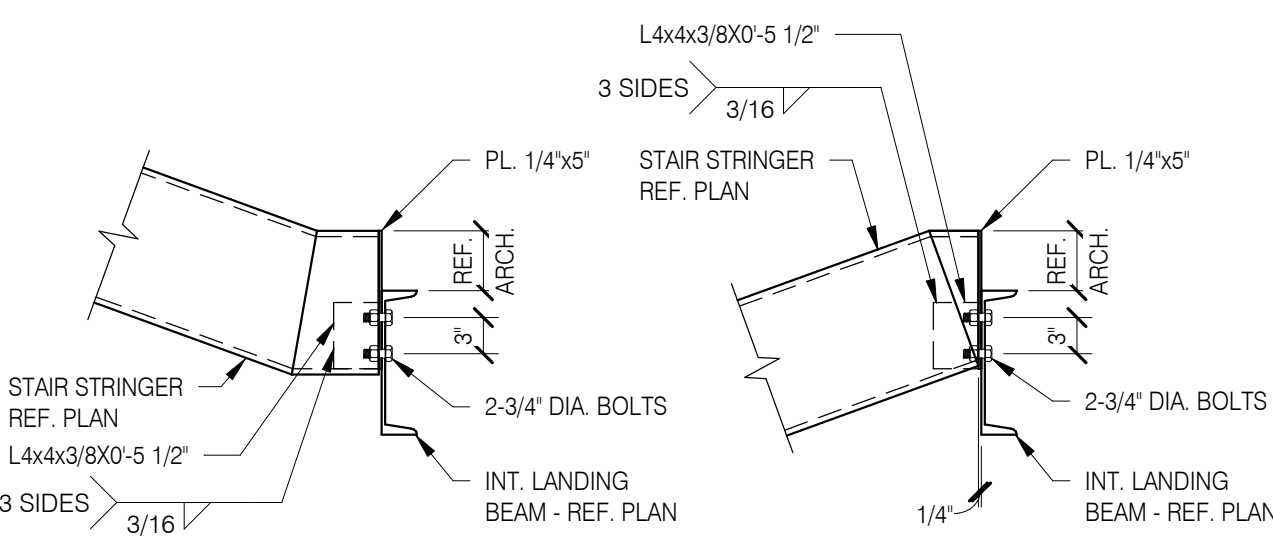
SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	03/11/2022
SHEET	OF SEQ #

S5.01

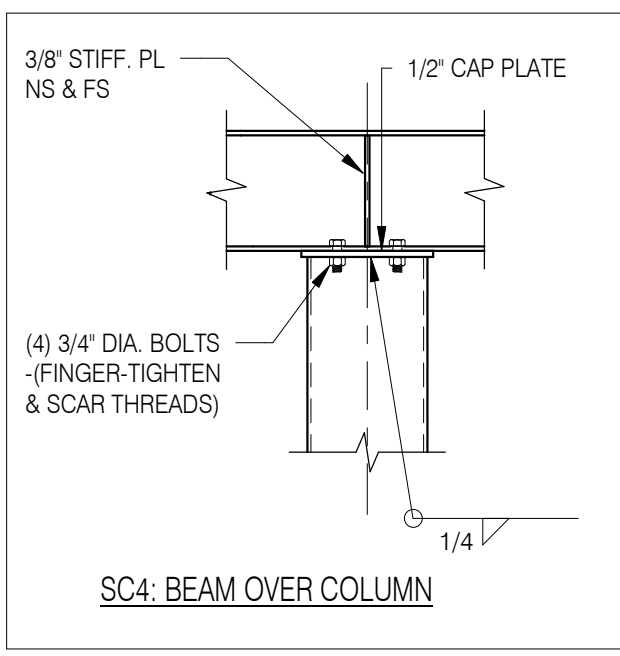
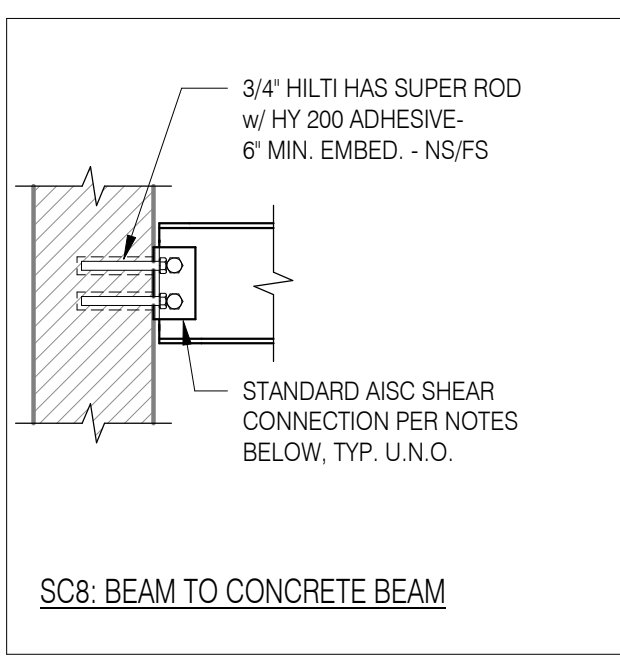
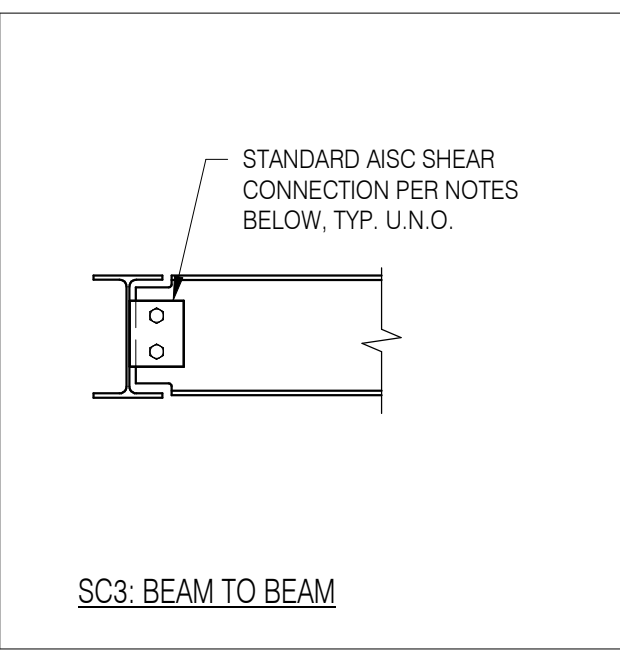
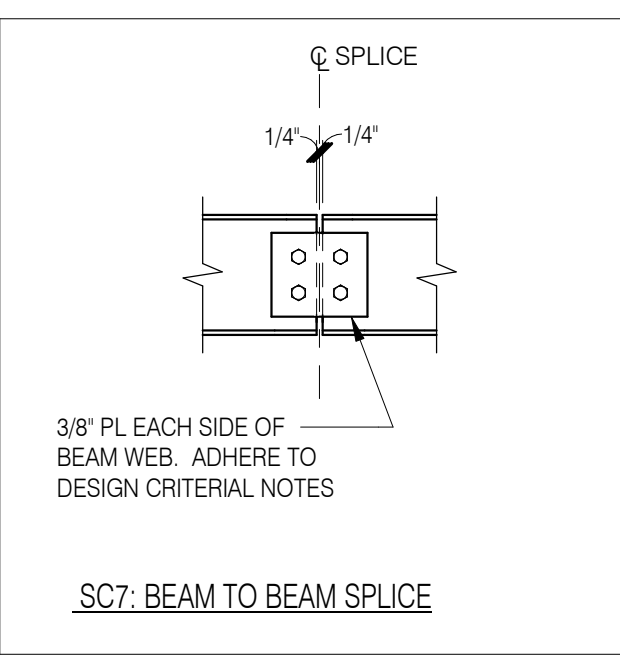


- CONSTRUCTION SEQUENCE:**
1. FIELD VERIFY EXIST. MASONRY WALL DIMENSIONS AND CONFIRM W/ STRUCTURAL ENGINEER.
 2. SAWCUT HORIZONTAL GROOVE IN EXIST. MASONRY WALL ABOVE PLANNED OPENING & INSTALL LINTEL ANGLES IN GROOVE.
 3. SAWCUT VERTICAL GROOVE IN EXIST. MASONRY WALL TO EACH SIDE OF PLANNED OPENING & INSTALL JAMB ANGLES.
 4. DEMOLISH EXISTING WALL INSIDE OPENING.

5 OPNG. IN EXIST. MASONRY DTL. 3/4" = 1'-0"



4 STAIR STRINGER SECTION 3/4" = 1'-0"

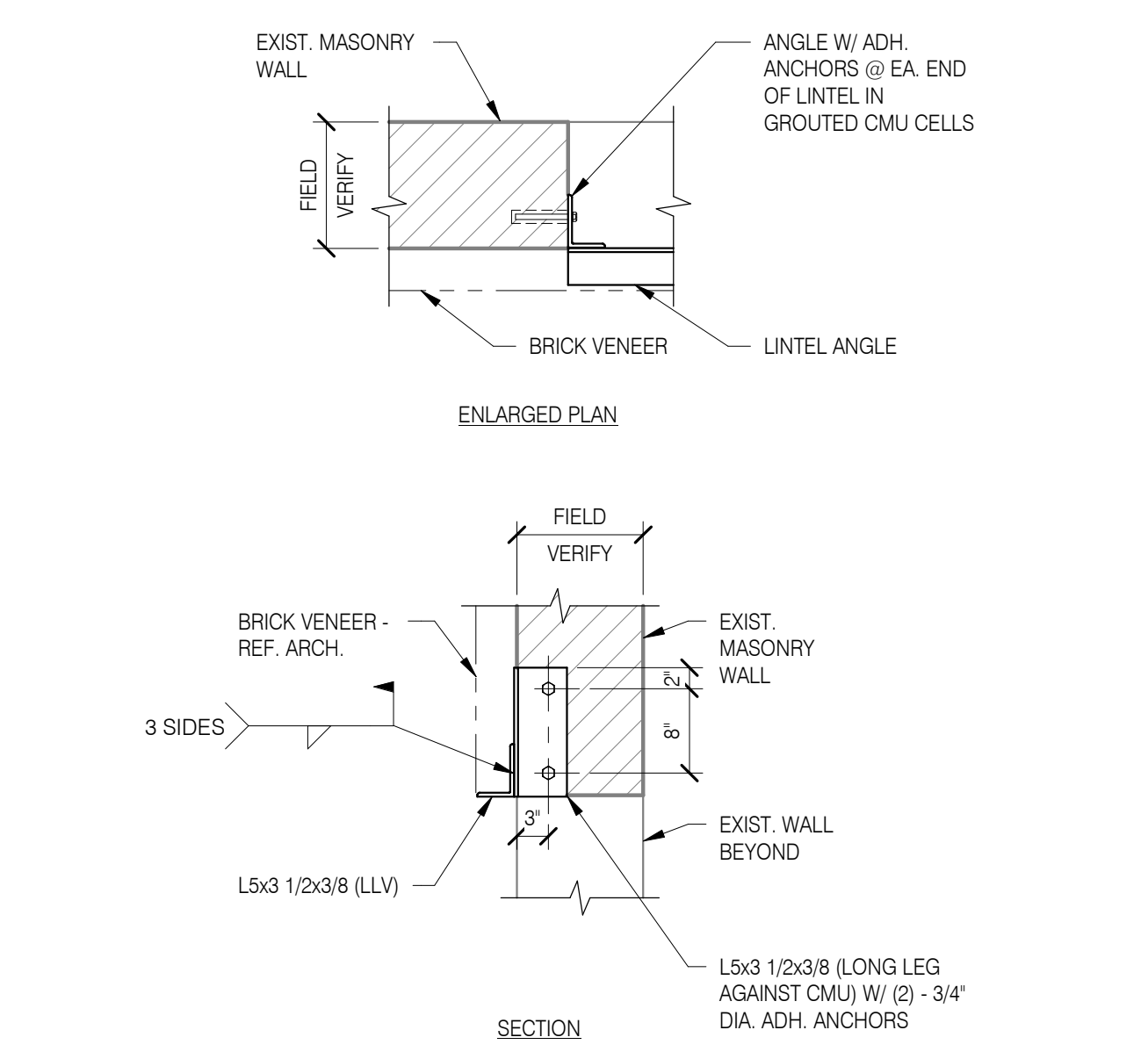


SHEAR CONNECTION DESIGN CRITERIA

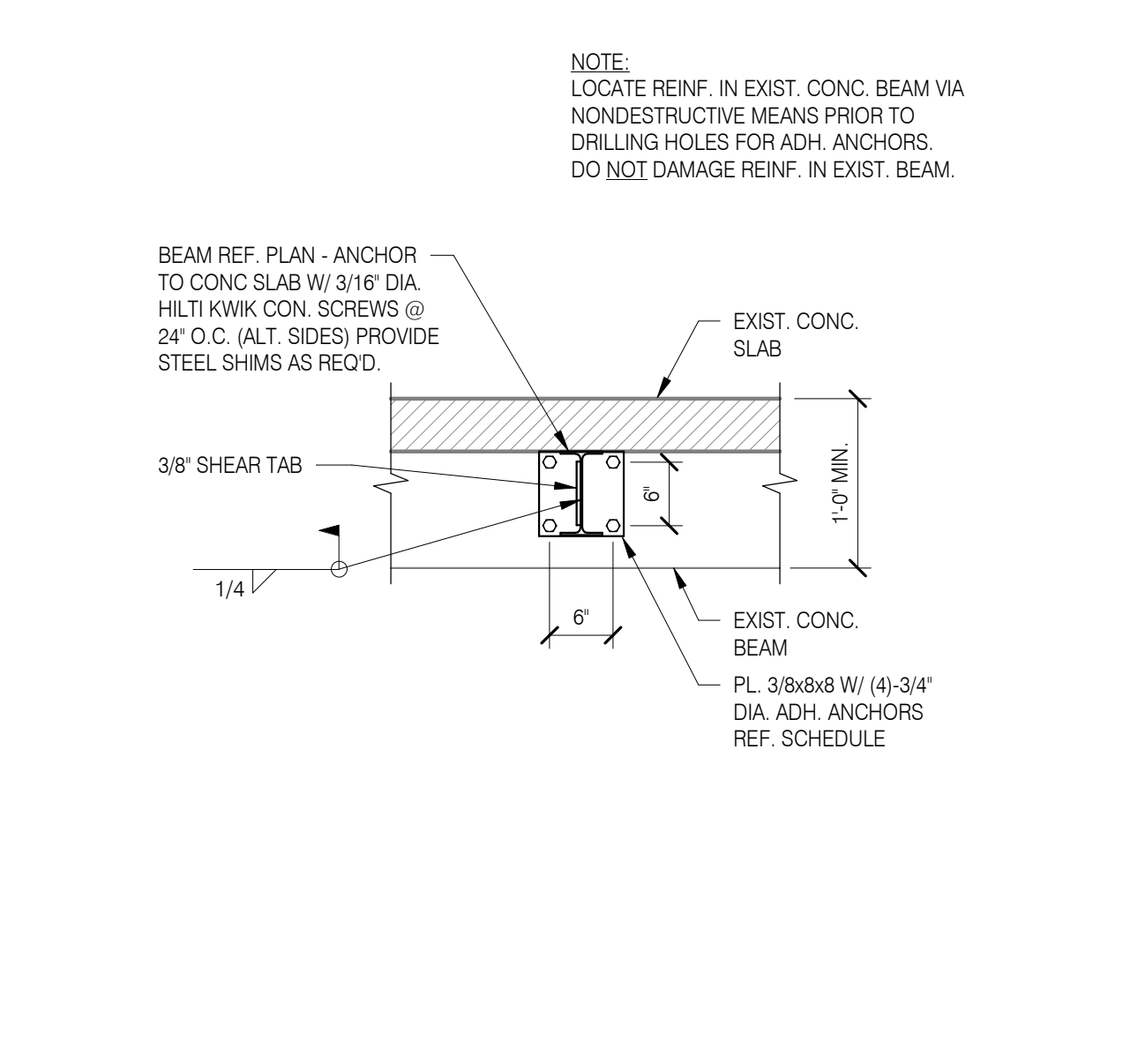
- DESIGN FOR UNFACTORED REACTIONS NOTED ON PLANS.
- IF REACTIONS ARE NOT NOTED ON PLANS: DESIGN NON-COMPOSITE BEAM CONNECTIONS FOR 1/2 THE TOTAL DESIGN UNIFORM LOAD FOR THE BEAM SPAN FROM THE AISC - UNIFORM LOAD TABLES; DESIGN COMPOSITE BEAM CONNECTIONS FOR 1.7 TIMES THE NON-COMPOSITE REACTION AS DESCRIBED ABOVE.
- DETAIL CONNECTIONS PER AISC - ASD 9TH EDITION SPECIFICATION USING MIN. 5/16" THICK DOUBLE CLIP ANGLES OR MIN. 3/8" SHEAR PLATE. USE 3/4" DIA. A 325-N BOLTS OR LARGER FOR ALL STRUCTURAL CONNECTIONS U.N.O. SHEAR PLATE CONNECTIONS SHALL BE BOLTED @ BEAM AND WELDED @ SUPPORT. DOUBLE CLIP ANGLES CAN BE EITHER BOLTED OR WELDED PROVIDED THEY COMPLY WITH LOADING REQUIREMENTS AND AISC STANDARDS.
- IN ADDITION TO SHEAR CONNECTION DESIGN CRITERIA PER NOTES A - C. PROVIDE A MINIMUM OF THE FOLLOWING NUMBER OF CONNECTION BOLTS AS FOLLOWS:

W8 - W12	2 BOLTS
W14-W16	3 BOLTS
W18-W21	4 BOLTS
W24	5 BOLTS
- SUBMIT SEALED CALCULATIONS OF ALL NON-STANDARD CONNECTIONS FOR ENGINEERS REVIEW.
- SUBMIT SEALED CALCULATIONS OF BRACE CONNECTIONS FOR ENGINEERS REVIEW.

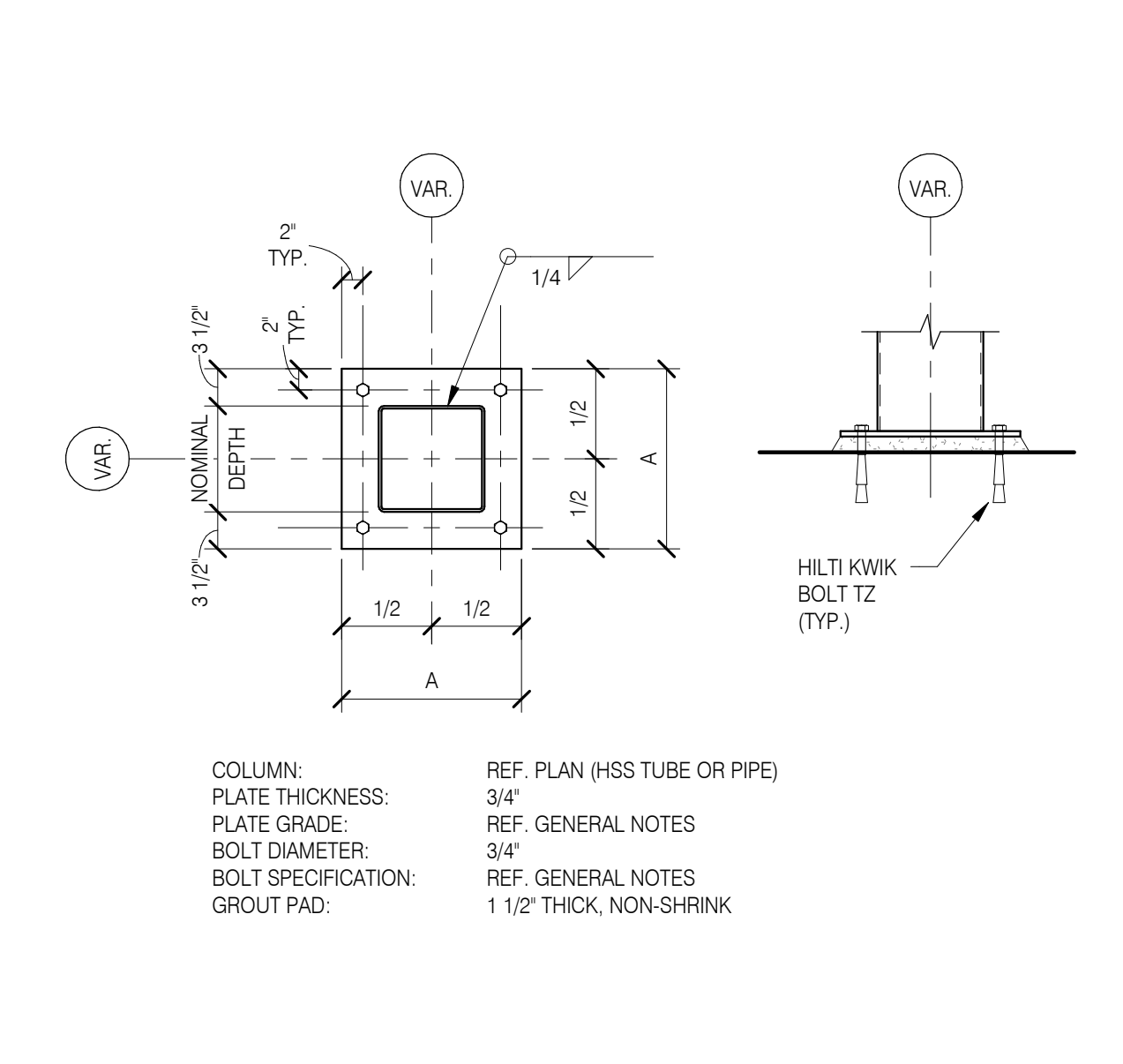
2 TYPICAL SHEAR CONNECTIONS NTS



6 LINTEL @ EXIST. OPNG. 3/4" = 1'-0"



3 BEAM TO CONC. BEAM 3/4" = 1'-0"



1 TYPICAL COLUMN BASE DETAILS 3/4" = 1'-0"

XREFS:

MECHANICAL SYMBOLS AND ABBREVIATIONS

NOTE: ALL SYMBOLS AND ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS

GENERAL NOTES

1. PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALL PERMITS, INSPECTIONS, LICENSES AND FEES. FURNISH ALL LABOR, EQUIPMENT, SUPPLIES AND MATERIALS NECESSARY TO PROVIDE COMPLETE AND OPERATIONAL SYSTEMS.
2. THE DRAWINGS AND SPECIFICATIONS INDICATE THE GENERAL DESIGN AND ARRANGEMENT OF PIPES, FIXTURES, EQUIPMENT, SYSTEMS, ETC. INFORMATION SHOWN IS DIAGRAMMATIC IN CHARACTER AND DOES NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DO NOT SCALE THE DRAWINGS FOR DIMENSIONS. TAKE ALL DIMENSIONS, MEASUREMENTS, EQUIPMENT LOCATIONS, LEVELS, ETC. FROM THE ARCHITECTURAL DRAWINGS AND FROM THE EQUIPMENT TO BE FURNISHED. PIPING MAY BE RELOCATED OR OFFSET FOR PROPER CLEARANCES OR TO AVOID CONFLICTS WITH OTHER TRADES. THE DESIGN INTENT (I.E. PITCHES, VELOCITIES, PRESSURE DROPS, VOLTAGE DROPS, ETC) CANNOT BE GREATLY ALTERED WITHOUT THE APPROVAL OF THE ARCHITECT. THE COST OF THESE DEVIATIONS TO AVOID INTERFERENCES SHALL BE PART OF THE ORIGINAL CONTRACT BID.
3. CONFER AND COOPERATE WITH ALL OTHER TRADES TO COORDINATE THEIR WORK. COORDINATION SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO MATERIALS AND EQUIPMENT ROUTED IN CEILING AND WALL CAVITIES, EQUIPMENT ARRANGEMENT IN MECHANICAL SPACES, INCLUDING EQUIPMENT CLEARANCE REQUIREMENTS, ELEVATIONS AND DIMENSIONS OF STRUCTURAL MEMBERS AND OPENINGS, ETC. NOTIFY THE ARCHITECT OF ANY CONFLICTS.
4. BASE FINAL INSTALLATION OF MATERIALS AND EQUIPMENT ON ACTUAL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE. FIELD MEASURE FOR MATERIALS AND EQUIPMENT REQUIRING EXACT FIT. NO EXTRAS WILL BE GIVEN FOR THE CONTRACTOR'S FAILURE TO FIELD COORDINATE.
5. THE OWNER OR ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR FOR MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THE WORK.
6. LOCATE ALL EQUIPMENT THAT MUST BE SERVICED, OPERATED, OR MAINTAINED IN FULLY ACCESSIBLE POSITIONS. EQUIPMENT SHALL INCLUDE (BUT NOT LIMITED TO) VALVES, MOTORS, CONTROLLERS, SWITCHGEAR, AND DRAIN POINTS IF REQUIRED FOR BETTER ACCESSIBILITY. FURNISH ACCESS DOORS FOR THIS PURPOSE. MINOR DEVIATIONS FROM THE DRAWINGS MAY BE ALLOWED TO PROVIDE FOR BETTER ACCESSIBILITY. ANY CHANGES SHALL BE APPROVED BY THE ARCHITECT AND CONSTRUCTION MANAGER/GENERAL CONTRACTOR PRIOR TO MAKING THE CHANGE.
7. PROVIDE ACCESS DOORS, WALL OPENINGS, ROOF OPENINGS OR ANY OTHER CONSTRUCTION REQUIREMENT NEEDED TO ACCOMMODATE THE MECHANICAL EQUIPMENT. LOCATIONS OF THESE OPENINGS SHALL BE SUBMITTED IN SUFFICIENT TIME TO BE INSTALLED IN THE NORMAL COURSE OF WORK.
8. COORDINATE ELECTRICAL REQUIREMENTS OF APPROVED MECHANICAL EQUIPMENT WITH THE ELECTRICAL SUB-CONTRACTOR PRIOR TO THE PURCHASE AND INSTALLATION OF ANY ELECTRICAL EQUIPMENT, DEVICES, WIRING, OR CONDUIT.
9. PROVIDE GENERAL CONTROL WIRING, THERMOSTATS, MOTORIZED DAMPERS AND CONDUIT ASSOCIATED WITH HVAC EQUIPMENT. COORDINATE THE LOCATION OF ALL THERMOSTATS, ROOM SENSORS, ETC WITH THE ARCHITECT AND ALL OTHER TRADES PRIOR TO INSTALLATION. IF A CONFLICT WITH MILLWORK, LIGHT SWITCHES, WINDOWS, ETC EXISTS, NOTIFY THE ARCHITECT OF THE POTENTIAL INTERFERENCE PRIOR TO INSTALLATION. INSTALL THERMOSTATS WITH PROTECTIVE LOCKING COVER, CENTERED AT 4'-0" ABOVE FINISHED FLOOR, UNLESS OTHERWISE INDICATED. COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE TEXAS ACCESSIBILITY'S STANDARD (TAS).
10. ALL DIMENSIONS SHOWN ON THE DRAWINGS FOR DUCTWORK ARE NET INSIDE CLEAR DIMENSIONS. FOR RECTANGULAR DUCT, THE FIRST FIGURE OF THE DUCT SIZE INDICATES THE DIMENSION OF THE FACE SHOWN. VERIFY THAT THE DUCTWORK SPECIFIED WILL FIT IN THE SPACE AVAILABLE USING THE ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DRAWINGS AS REFERENCE PRIOR TO FABRICATION AND INSTALLATION.
11. PROVIDE TURNING VANES ON ALL RECTANGULAR SUPPLY, EXHAUST AND RETURN DUCTWORK INCLUDING THE TOP AND BOTTOM OF VERTICAL DUCTS.
12. PROVIDE A LOCKING QUADRANT VOLUME DAMPER AT THE TAP OF EACH RUN-OUT TO DIFFUSERS FOR BALANCING PURPOSES, UNLESS OTHERWISE INDICATED. THE RUN-OUT DUCT SIZE IS THE SAME SIZE AS THE DIFFUSER OR GRILLE NECK SIZE UNLESS OTHERWISE INDICATED.
13. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF ALL FIRE RATED WALLS AND CEILINGS. PROVIDE FIRE DAMPERS AND/OR COMBINATION FIRE/SMOKE DAMPERS IN DUCTWORK AT ALL LOCATIONS WHERE DUCTS PASS THROUGH FIRE RATED ASSEMBLY. MECHANICAL SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING FIRE AND FIRE/SMOKE DAMPERS. COORDINATE CONSTRUCTION REQUIREMENTS AND PROVISIONS FOR CONNECTIONS TO FIRE ALARM SYSTEM.
14. ALL DUCTWORK SHALL BE SHEET METAL FABRICATED IN ACCORDANCE WITH SMACNA STANDARDS. ALL DUCT WORK ON VAV SYSTEMS FROM AHU TO TERMINAL UNIT SHALL BE CONSTRUCTED TO 8" W.G. AND SEALED TO SMACNA CLASS A. DUCT WORK DOWN STREAM OF TERMINAL UNITS SHALL BE CONSTRUCTED TO 1" W.G. AND SEALED TO SMACNA CLASS C. ALL DUCT WORK ASSOCIATED WITH CONSTANT VOLUME AHE SHALL BE CONSTRUCTED TO 2" W.G. AND SEALED TO SMACNA CLASS B. SEAL ALL SEAMS WITH MASTIC SEALANT UL 181 LISTED FOR THE APPLICATION USED. SEALANT SHALL BE DESIGNED FOR USE ON METAL DUCT AND FLEXIBLE DUCT.
15. PROVIDE VIBRATION ISOLATORS FOR MOTOR DRIVEN EQUIPMENT UNLESS NOTED OTHERWISE. PROVIDE ISOLATION AS INDICATED OR AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
16. SOME DUCTS SHOWN ON EACH FLOOR PLAN MAY BE SHOWN WITH AN OFFSET FOR CLARITY.
17. SEAL ALL DUCT AND PIPE PENETRATIONS THROUGH FIRE RATED BUILDING ELEMENTS WITH AN APPROVED FIRE PROOFING MATERIAL.
18. ALL EQUIPMENT SHALL HAVE IDENTIFICATION TAGS. REFER TO DIVISION 16 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
19. EXPAND OR REDUCE DUCTS AT EQUIPMENT CONNECTIONS BASED ON THE EQUIPMENT PURCHASED, WITH TRANSITIONS NOT TO EXCEED 30 DEGREES. SIZES SHOWN ON SCHEDULES, ETC. ARE FOR GUIDANCE ONLY. ASPECT RATIO SHALL BE NO GREATER THAN 4:1, PER SMACNA'S GUIDELINES.
20. ALL DUCTS WITH A DIMENSION GREATER THAN 12" PASSING THRU A NON-RATED WALL SHALL HAVE THE OPENING FRAMED IN WITH METAL STUDS. COORDINATE OPENING SIZE AND LOCATION WITH OTHER TRADES.

SYMBOLS

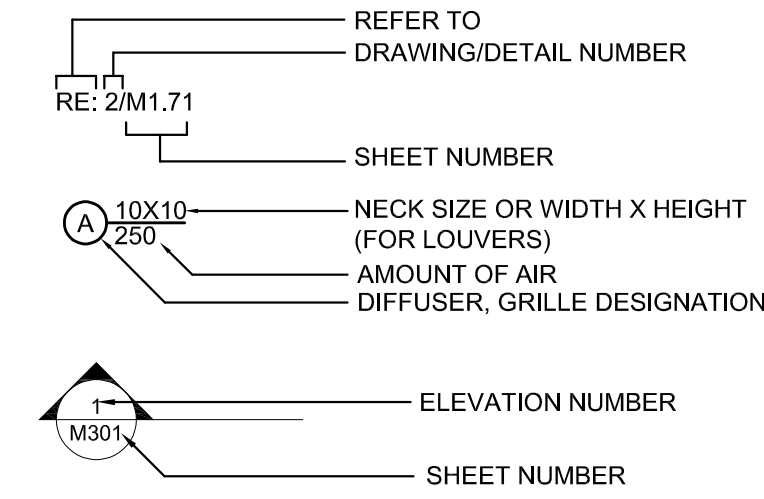
SYMBOL	DESCRIPTION
	ACOUSTICAL DUCT LINING (FIGURES SHOWN ARE INSIDE DUCT DIMENSIONS)
	SUPPLY AIR DUCT UP (POSITIVE PRESSURE)
	RETURN, EXHAUST OR OUTSIDE AIR INTAKE DUCT UP (NEGATIVE PRESSURE)
	SUPPLY AIR DUCT DOWN (POSITIVE PRESSURE)
	RETURN, EXHAUST OR OUTSIDE AIR INTAKE DUCT DOWN (NEGATIVE PRESSURE)
	ROUND DUCT UP
	ROUND DUCT DOWN
	RECTANGULAR DUCT SQUARE ELBOW WITH TURNING VANES
	RECTANGULAR DUCT RADIUS ELBOW
	ROUND DUCT RADIUS ELBOW
	TRANSITION CONCENTRIC UNLESS TOP LEVEL (TOP LVL) OR BOTTOM LEVEL (BOT LVL) IS NOTED
	TRANSITION, RECTANGULAR TO ROUND CONCENTRIC UNLESS TOP LEVEL (TOP LVL) OR BOTTOM LEVEL (BOT LVL) IS NOTED
	SQUARE CEILING DIFFUSER (SUPPLY) (4-WAY UNLESS OTHERWISE INDICATED)
	SQUARE CEILING GRILLE (RETURN OR EXHAUST)
	THERMOSTAT (OR) TEMP SENSOR
	DUCT SPLITTER WITH DAMPER
	MOTORIZED DAMPER
	MANUAL VOLUME DAMPER
	FIRE DAMPER
	FIRE SMOKE DAMPER

BASIS OF MECHANICAL DESIGN

PRIMARY MECHANICAL CODES:
 MECHANICAL: 2018 INTERNATIONAL MECHANICAL CODE (WITH CITY AMENDMENTS).
 ENERGY: 2018 INTERNATIONAL ENERGY CODE (WITH CITY AMENDMENTS).

PROJECT DESIGN VALUES:
 OUTDOOR DESIGN TEMPERATURE (SUMMER): 99°F (DRYBULB), 77°F (WETBULB)
 AMBIENT TEMPERATURE AT CONDENSING UNITS: 105°F (DRYBULB, SUMMER)
 OUTDOOR DESIGN TEMPERATURE (WINTER): 22°F (DRYBULB)
 INDOOR DESIGN TEMPERATURE (SUMMER): 75°F (DRYBULB), 50% (RELATIVE HUMIDITY)
 INDOOR DESIGN TEMPERATURE (WINTER): 72°F (DRYBULB)
 OUTSIDE AIR REQUIREMENTS: PER IMC TABLE 403.3

DRAWING/DETAIL REFERENCE



MISCELLANEOUS

- DRAWING NOTE REFERENCE (I.E., NOTES BY SYMBOL)
- CONNECTION INTO EXISTING

ABBREVIATIONS

AD ACCESS DOOR	L LENGTH	LAT LEAVING AIR TEMPERATURE
A/C AIR CONDITIONING UNIT	LPC LOW PRESSURE CONDENSATE	LPS LOW PRESSURE STEAM
A/E ARCHITECT/ENGINEER	LB POUNDS	LRA LOCKED ROTOR AMPS
AFF ABOVE FINISHED FLOOR	LWT LEAVING WATER TEMPERATURE	MAX MAXIMUM
AFS AIR FLOW SWITCH	MBH 1000 BRITISH THERMAL UNITS / HOUR	MCA MINIMUM CIRCUIT AMPACITY
AHU AIR HANDLING UNIT	MFR MANUFACTURER	MIN MINIMUM
APPROX APPROXIMATE	N/A NOT APPLICABLE	N/O, N/C NORMALLY OPEN, NORMALLY CLOSED
BAS BUILDING AUTOMATION SYSTEM	O/A OUTSIDE AIR/FRESH AIR	OBD OPPOSED BLADE DAMPER
BHP BRAKE HORSE POWER	O/C ON CENTER	PEF PURGE EXHAUST FAN
BTU BRITISH THERMAL UNIT PER HOUR	PH PHASE	PROVIDE FURNISH AND INSTALL
C/A COMBUSTION AIR	PRV PRESSURE REDUCING VALVE	PSI POUNDS PER SQUARE INCH
CC COOLING COIL	R/A RETURN AIR	RE: REFERENCE, REFER
CFH CUBIC FEET PER HOUR	REF: REFERENCE, REFER	RL REFRIGERANT LIQUID
CFM CUBIC FEET PER MINUTE	R/L RUNNING LOAD AMPS	RM ROOM
CLG CEILING	RPM REVOLUTIONS PER MINUTE	RS REFRIGERANT SUCTION
CU CONDENSING UNIT	S/A SUPPLY AIR	SD SMOKE DETECTOR
D EQUIPMENT DRAIN	SF SQUARE FOOT, SUPPLY FAN SPECIFICATIONS	T, TSTAT THERMOSTAT, ROOM SENSOR
DEG DEGREES	TIA THROUGH TRANSFER AIR	TSP TOTAL STATIC PRESSURE
DB DRY BULB	TSTAT THERMOSTAT OR ROOM SENSOR	TYP TYPICAL
DN DOWN	UL UNDERWRITERS LABORATORIES, INC.	UH UNIT HEATER
(E) EXISTING	V VOLTS	V VARIABLE AIR VOLUME
EAT ENTERING AIR TEMPERATURE	VAV VARIABLE AIR VOLUME	VEL VELOCITY
E/A EXHAUST AIR	VEL VELOCITY	VFD VARIABLE FREQUENCY DRIVE
EDH ELECTRIC DUCT HEATER	W/ WITH	WB WET BULB
EF EXHAUST FAN	W/O WITHOUT	
EQUIP EQUIPMENT		
EWT ENTERING WATER TEMPERATURE		
°F DEGREES FAHRENHEIT		
FCU FAN COIL UNIT		
FD FIRE DAMPER		
FLA FULL LOAD AMPS		
FLR FLOOR		
FPVAV FAN POWERED VAV		
FSD FIRE SMOKE DAMPER		
FT, FT. FOOT, FEET		
FT, WG FEET WATER GAUGE		
GA U.S. GAUGE		
GPM GALLONS PER MINUTE		
H HEIGHT		
HP HORSEPOWER		
HPC HIGH PRESSURE CONDENSATE		
HPS HIGH PRESSURE STEAM		
HWR HEATING WATER RETURN		
HWS HEATING WATER SUPPLY		
HZ HERTZ		
IN, IN. INCHES		
IN, WG INCHES WATER GAUGE		
J-BOX JUNCTION BOX		
KW KILOWATT		

REV	DATE	DESCRIPTION	SYMBOL	REVISIONS

KOMATSU
ARCHITECTURE

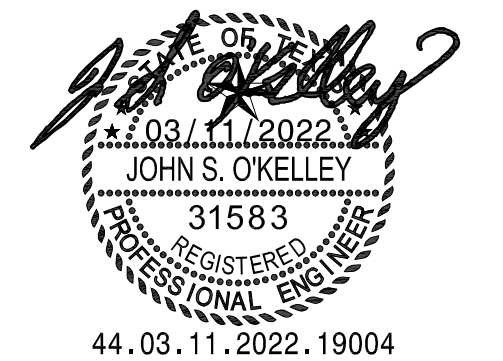
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POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

MECHANICAL GENERAL NOTES AND LEGENDS



44.03.11.2022.19004

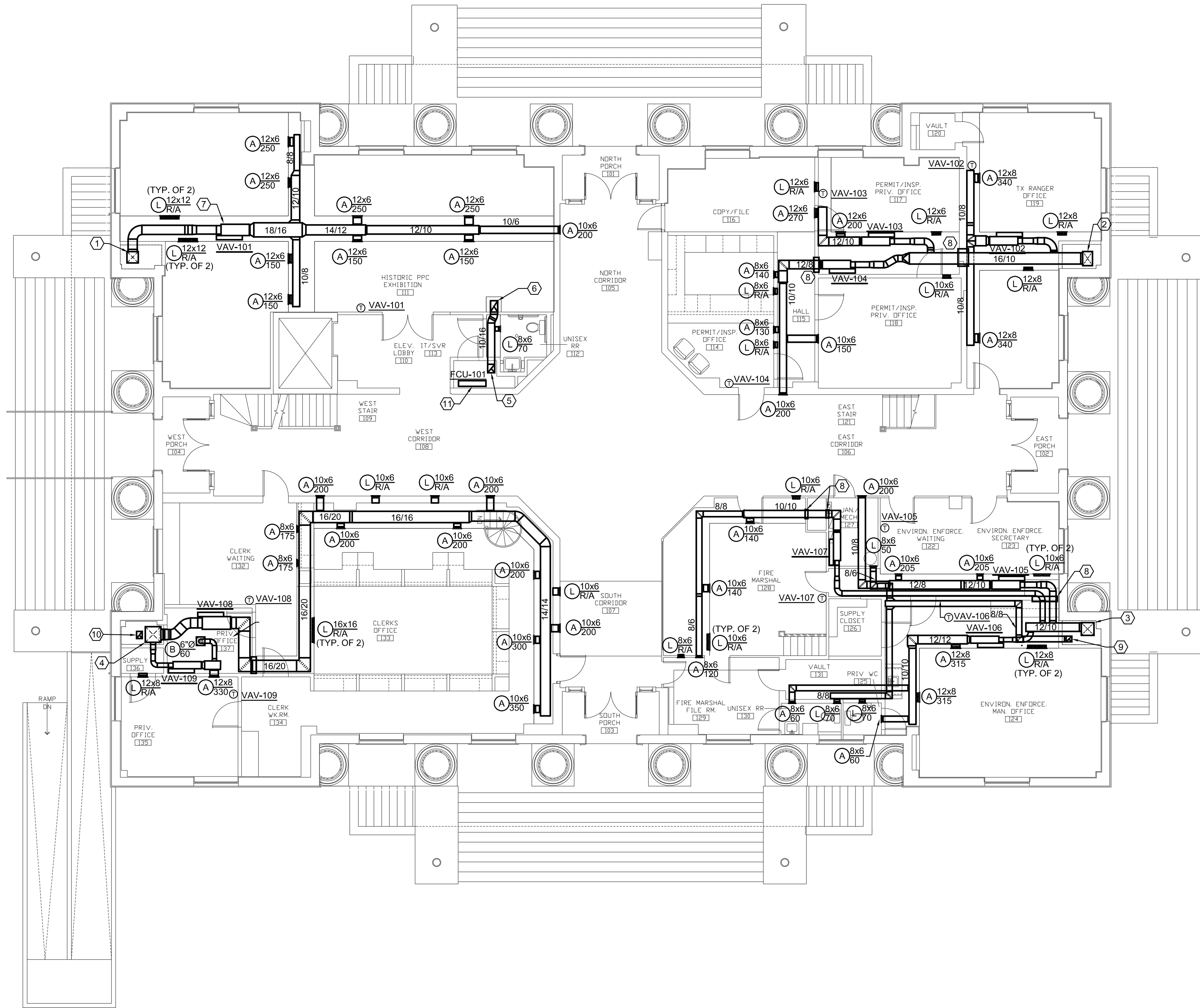
SOLARE
ENGINEERING UNLIMITED, INC.

1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102
Tel 817.529.6500 Fax 817.529.0649 www.solare-eng.com

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	

M0.01

SHEET SIZE = ANSI D 22x34



1 MECHANICAL 1ST FLOOR PLAN
1/8" = 1' - 0"

GENERAL NOTES

- COORDINATE FINAL LOCATIONS OF THERMOSTATS WITH OWNER (VIA ARCHITECT) PRIOR TO INSTALLATION.

NOTES BY SYMBOL "E"

- 16/16-INCH SUPPLY DUCT DOWN FROM 2ND FLOOR.
- 20/14-INCH SUPPLY DUCT DOWN FROM 2ND FLOOR.
- 18/18-INCH SUPPLY DUCT DOWN FROM 2ND FLOOR.
- 20/20-INCH SUPPLY DUCT DOWN FROM 2ND FLOOR.
- 10/14-INCH EXHAUST DUCT UP FROM BASEMENT.
- 10/16-INCH EXHAUST DUCT UP TO 2ND FLOOR.
- TYPICAL VAV BOX. REFER TO DETAIL 1/M6.02 FOR ADDITIONAL INFORMATION.
- THIS SECTION OF WALL TO BE OPEN ABOVE FURDOWN FOR R/A.
- 8/8-INCH EXHAUST DUCT UP TO 2ND FLOOR
- 8/10-INCH EXHAUST DUCT UP TO 2ND FLOOR
- TYPICAL FAN COIL UNIT. REFER TO DETAIL 4/M6.01 FOR ADDITIONAL INFORMATION.

MECHANICAL DUCT CLEARANCE NOTES

- THE BOTTOM OF DUCTING SHALL BE NO LOWER THAN 7 FT CLEAR A.F.F. CONTRACTOR IS TO FIELD VERIFY EXISTING CLEARANCE AT/BELOW EXISTING STRUCTURAL BEAMS PRIOR TO SUBMITTING MECHANICAL SHOP DRAWINGS. WHERE OVERHEAD STRUCTURE PROHIBITS THE 7 FT CLEAR THEN THE CONTRACTOR IS TO IMMEDIATELY DOCUMENT LOCATION AND CONDITIONS AND SUBMIT WRITTEN RFI TO ARCHITECT FOR REVIEW PURPOSES.
- GRILLES AND DIFFUSERS ARE TO BE LOCATED AS HIGH AS POSSIBLE, WHERE IT IS LEAST VISUALLY INTRUSIVE, WITHOUT CONFLICTING WITH THE ORIGINAL ARCHITECTURAL FEATURES OR THE STRUCTURAL BEAMS. CONTRACTOR IS TO FIELD VERIFY AND COORDINATE PLACEMENT OF GRILLES AND DIFFUSERS WITH ARCHITECT.

NO.	DATE	DESCRIPTION	BY	APPROVED

KOMATSU
ARCHITECTURE

ISSUED FOR CONSTRUCTION

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POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

MECHANICAL 1ST FLOOR PLAN

44.03.11.2022.19004

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1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102
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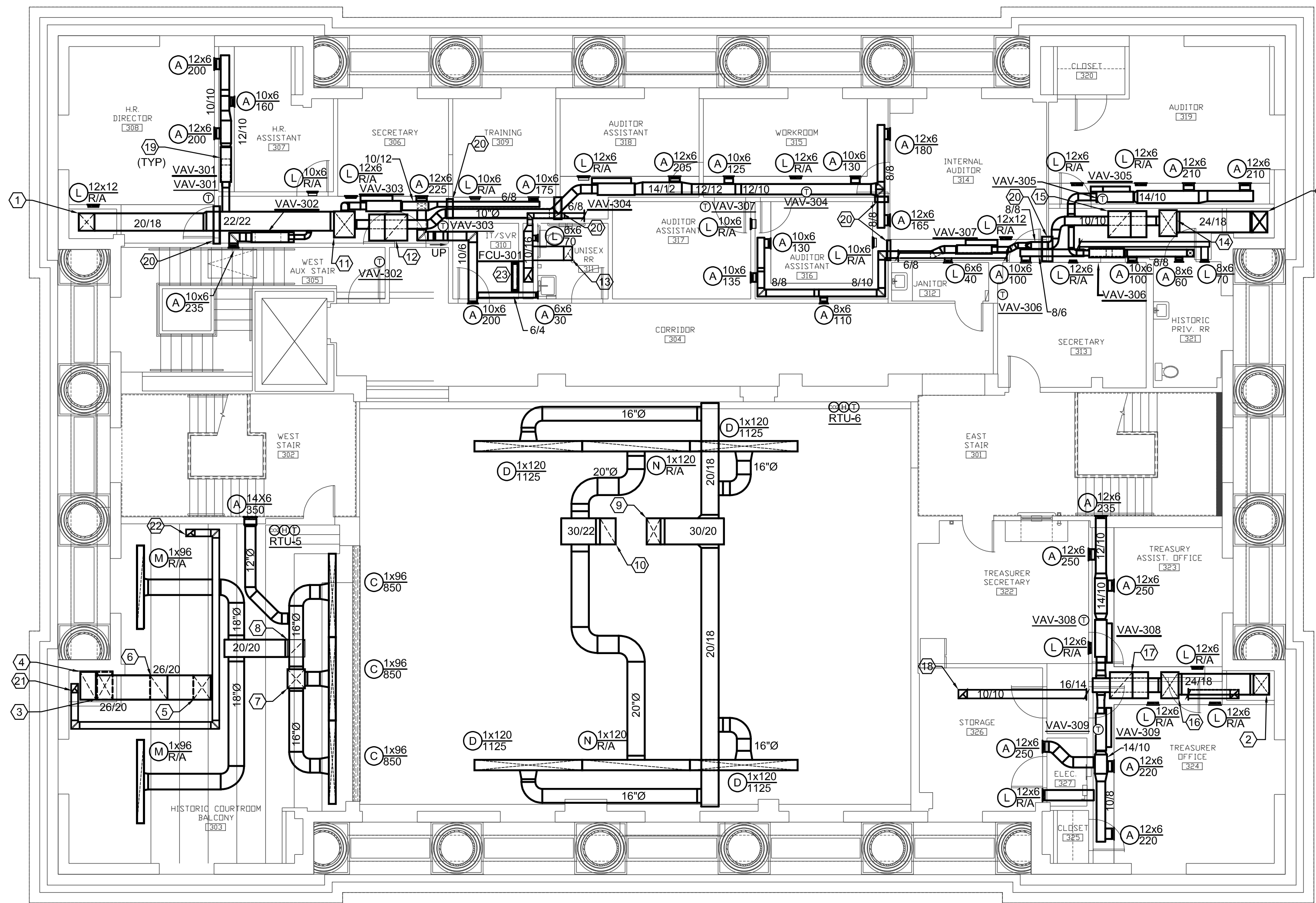
8' 0 8' 16'
1/8"=1'-0"

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	

M2.01

SHEET SIZE = ANSI D 22x34
 Polk County CourthouseMECH3RD19004 - M2.03 Third Floor Plan - Layout - 03/11/2022 09:59:53 bmlbly

XREFS:



1 MECHANICAL 3RD FLOOR PLAN
 1/8" = 1' - 0"

GENERAL NOTES

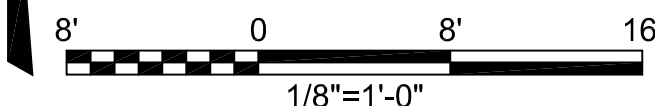
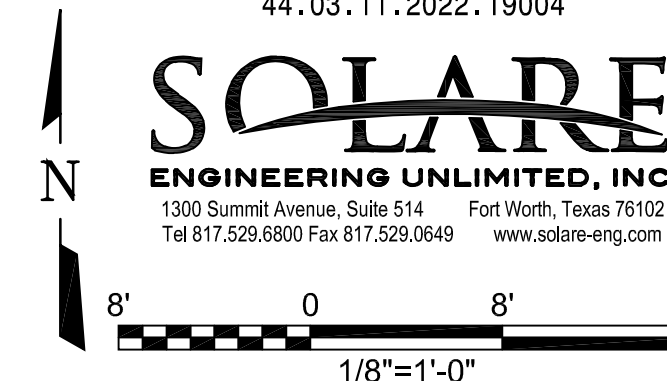
- COORDINATE FINAL LOCATIONS OF THERMOSTATS, CO2 SENSORS AND HUMIDITY SENSORS WITH OWNER (VIA ARCHITECT) PRIOR TO INSTALLATION.

NOTES BY SYMBOL "#"

- ① 20/18-INCH SUPPLY DUCT DOWN TO FLOOR BELOW.
- ② 24/18-INCH SUPPLY DUCT DOWN TO FLOOR BELOW.
- ③ 30/18-INCH SUPPLY DUCT DOWN TO FLOOR BELOW.
- ④ 30/18-INCH RETURN DUCT DOWN 18 INCHES AND TERMINATE WITH 1/2" STAINLESS STEEL MESH SCREEN.
- ⑤ 26/20-INCH SUPPLY DUCT DOWN FROM RTU-4 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑥ 26/20-INCH RETURN DUCT UP TO RTU-4 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑦ 20/22-INCH SUPPLY DUCT DOWN FROM RTU-5 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑧ 20/20-INCH RETURN DUCT UP TO RTU-5 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑨ 30/20-INCH SUPPLY DUCT DOWN FROM RTU-6 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑩ 30/32-INCH RETURN DUCT UP TO RTU-6 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑪ 30/24-INCH SUPPLY DUCT DOWN FROM RTU-1 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑫ 30/26-INCH RETURN DUCT UP TO RTU-1 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑬ 10/16-INCH EXHAUST DUCT UP TO EF-1 ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑭ 30/20-INCH SUPPLY DUCT DOWN FROM RTU-2 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑮ 30/26-INCH RETURN DUCT UP TO RTU-2 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑯ 30/20-INCH SUPPLY DUCT DOWN FROM RTU-3 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑰ 30/26-INCH RETURN DUCT UP TO RTU-3 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑱ 12/12-INCH EXHAUST DUCT UP TO EF-2 ON ROOF. TRANSITION TO FULL SIZE OPENING AS REQUIRED.
- ⑲ TYPICAL VAV BOX. REFER TO DETAIL 1/M6.02 FOR ADDITIONAL INFORMATION.
- ⑳ THIS SECTION OF WALL TO BE OPEN ABOVE FURDOWN FOR R/A.
- ㉑ 8/10-INCH EXHAUST DUCT UP FROM FLOOR BELOW.
- ㉒ 8/10-INCH EXHAUST DUCT UP TO EF-3 ON ROOF. TRANSITION TO FULL SIZED OPENING AS REQUIRED.
- ㉓ TYPICAL FAN COIL UNIT. REFER TO DETAIL 4/M6.01 FOR ADDITIONAL INFORMATION.

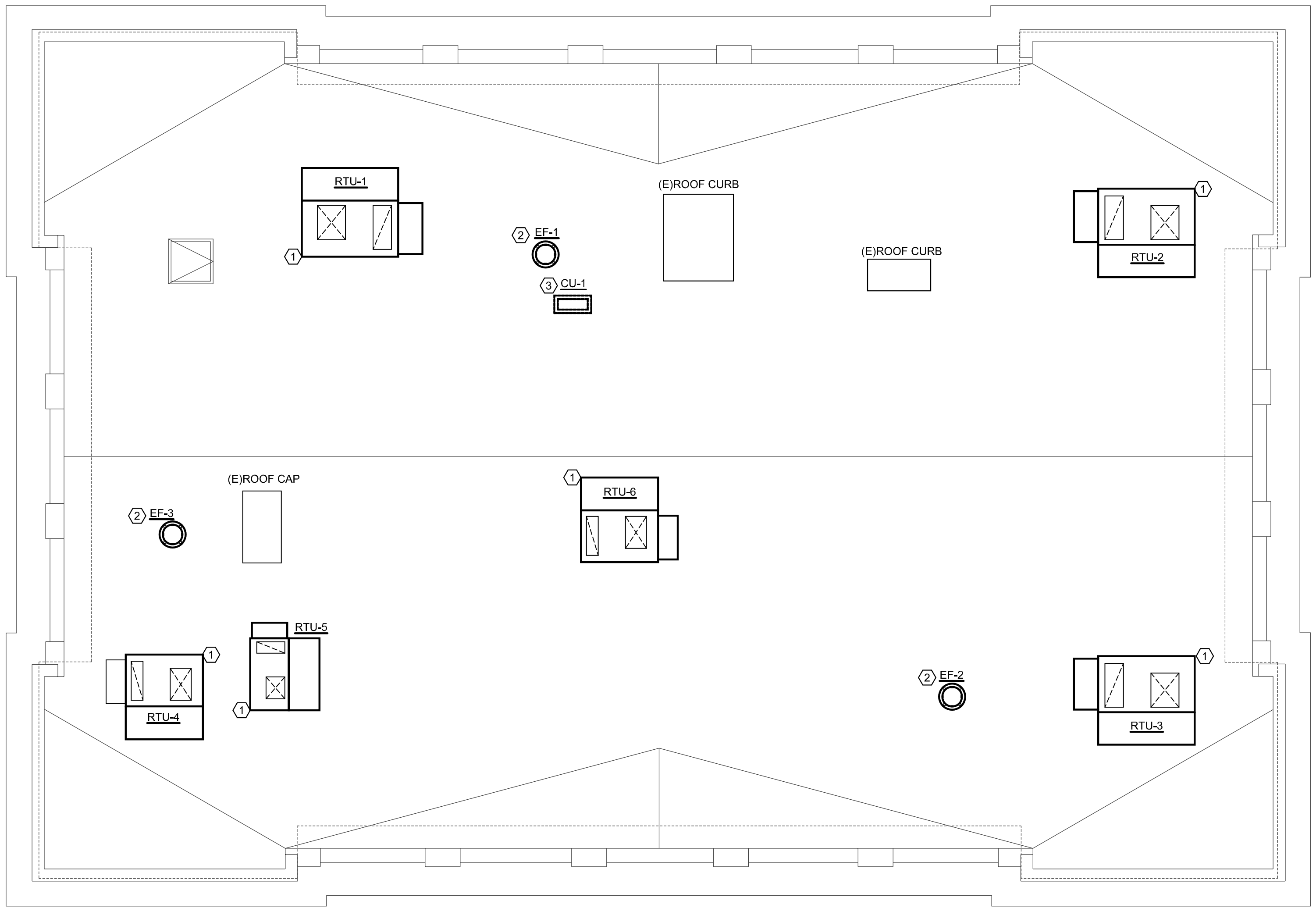
MECHANICAL DUCT CLEARANCE NOTES

- THE BOTTOM OF DUCTING SHALL BE NO LOWER THAN 7 FT CLEAR A.F.F.. CONTRACTOR IS TO FIELD VERIFY EXISTING CLEARANCE AT/BELOW EXISTING STRUCTURAL BEAMS PRIOR TO SUBMITTING MECHANICAL SHOP DRAWINGS. WHERE OVER-HEAD STRUCTURE PROHIBITS THE 7 FT CLEAR THEN THE CONTRACTOR IS TO IMMEDIATELY DOCUMENT LOCATION AND CONDITIONS AND SUBMIT WRITTEN RFI TO ARCHITECT FOR REVIEW PURPOSES.
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POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION	101 W. Church Street Livingston, TX 77351 MECHANICAL 3RD FLOOR PLAN
SHEET SIZE: 22 x 34 SCALE: N/A KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #	APPROVED: _____ DATE: _____
M2.03	

SHEET SIZE = ANSI D 22x34



GENERAL NOTES

1. MAINTAIN 10-FT CLEARANCE BETWEEN ALL AIR INTAKES AND EXHAUST VENTS

NOTES BY SYMBOL "①"

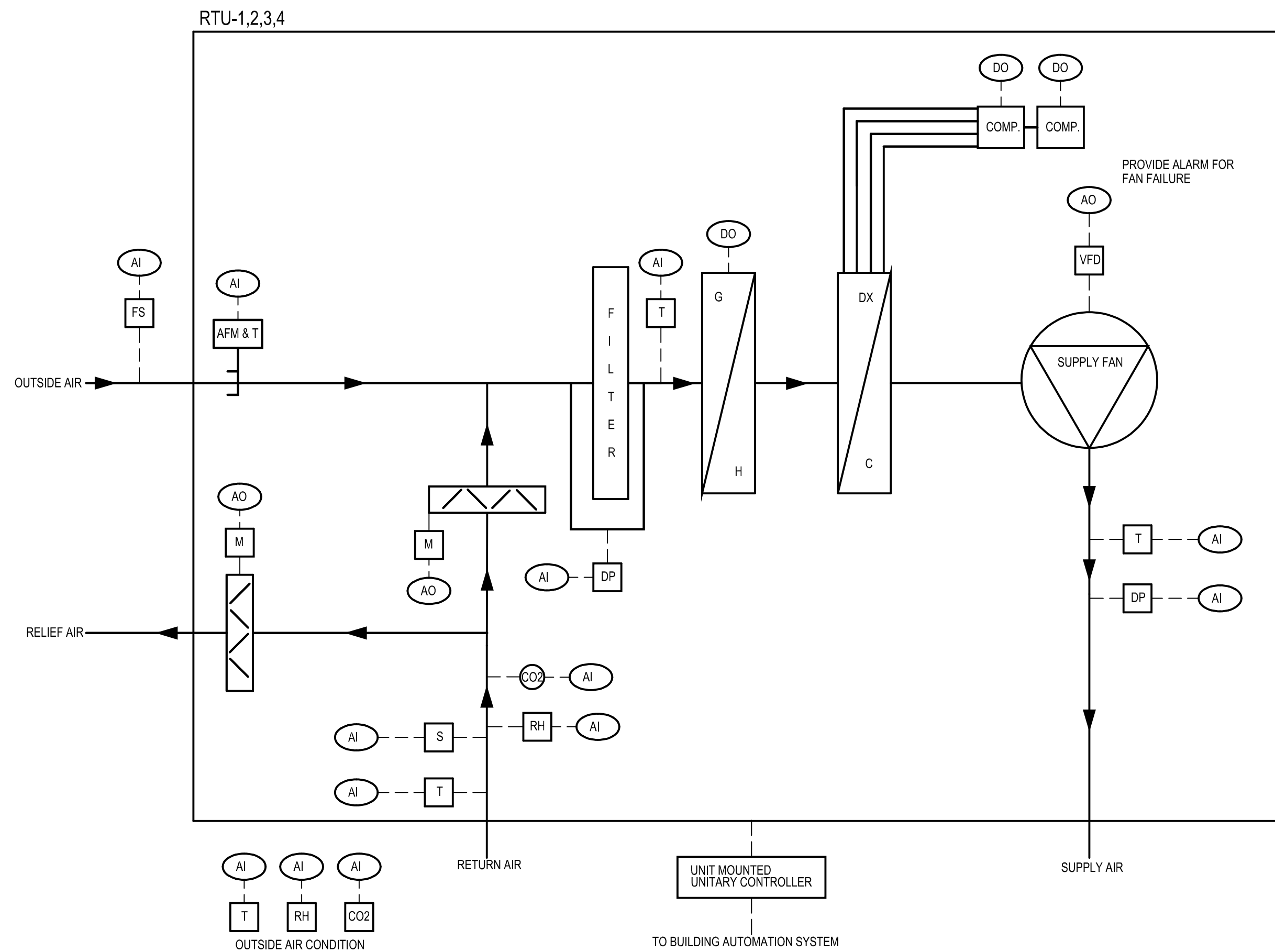
① TYPICAL ROOF TOP UNIT. REFER TO 1/M6.01 FOR ADDITIONAL INFORMATION.
 ② TYPICAL EXHAUST FAN. REFER TO 3/M6.01 FOR ADDITIONAL INFORMATION.
 ③ TYPICAL CONDENSING UNIT. REFER TO 4,5,7/M6.01 FOR ADDITIONAL INFORMATION.

1 MECHANICAL ROOF PLAN
 1/8" = 1' - 0"

44.03.11.2022.19004

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 Tel 817-529-6800 Fax 817-529-0649 www.solare-eng.com

<p>KOMATSU ARCHITECTURE</p> <p>ISSUED FOR CONSTRUCTION</p>	<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">NO.</th> <th style="width: 45%;">DESCRIPTION</th> <th style="width: 10%;">DATE</th> <th style="width: 40%;">APPROVED</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DESCRIPTION	DATE	APPROVED																
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<p>POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION</p> <p>101 W. Church Street Livingston, TX 77351</p> <p>MECHANICAL ROOF PLAN</p>																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">SHEET SIZE</td> <td style="width: 50%;">22 x 34</td> </tr> <tr> <td>SCALE:</td> <td>2017.171B</td> </tr> <tr> <td>KAI JOB NUMBER:</td> <td>N/A</td> </tr> <tr> <td>SPECIFICATIONS NO.:</td> <td>N/A</td> </tr> <tr> <td>DATE:</td> <td>MARCH 11, 2022</td> </tr> <tr> <td>SHEET OF SEQ #</td> <td>1 OF 1</td> </tr> </table>		SHEET SIZE	22 x 34	SCALE:	2017.171B	KAI JOB NUMBER:	N/A	SPECIFICATIONS NO.:	N/A	DATE:	MARCH 11, 2022	SHEET OF SEQ #	1 OF 1								
SHEET SIZE	22 x 34																				
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SPECIFICATIONS NO.:	N/A																				
DATE:	MARCH 11, 2022																				
SHEET OF SEQ #	1 OF 1																				
<p>M2.04</p>																					



SEQUENCE OF OPERATION - RTU'S 1,2,3,4

1. THE CONTROLS CONTRACTOR SHALL COORDINATE WITH ROOFTOP UNIT MANUFACTURER FOR PROVIDING CONTROLLER FOR ROOFTOP UNIT. CONTROLS CONTRACTOR SHALL PROVIDE THE NECESSARY CONTROLLER FROM THE ROOFTOP UNIT MANUFACTURER. THE CONTROLLER SHALL HAVE THE NECESSARY POINTS AND SEQUENCE OF OPERATION AS REQUIRED BY THE CONTROLS DOCUMENTS. THE CONTROLS SHALL BE ENERGIZED TO OPERATE CONTINUOUSLY.
2. SUPPLY FAN OFF. WHEN THE SUPPLY FAN IS OFF, THE COMPRESSORS, AND GAS HEAT SHALL BE OFF.
3. PROVIDE UNIT WITH START/STOP ABILITY BASED ON A TIME-OF-DAY SCHEDULE WITH THE ABILITY FOR OPTIMUM START.
4. PROVIDE SUPPLY FAN STATUS (VFD OPERATIONS: HERTZ). PROVIDE AN ALARM FOR FAN FAILURE.
5. MONITOR SUPPLY AIR TEMPERATURE AND TRANSMIT TO USER INTERFACE.
6. DURING COOLING MODE, SUPPLY AIR TEMPERATURE SHALL MAINTAIN AN AIR TEMPERATURE OF 55°F BY MODULATING ONE OF THE VFD SCROLL COMPRESSORS. WHEN ONE OF THE VFD SCROLL COMPRESSORS IS AT 100% LOAD FOR 5 MINUTES AND THE LEAVING AIR TEMPERATURE IS NOT SATISFIED ANOTHER SCROLL COMPRESSOR SHALL COME ONLINE. ALARM SHALL BE SENT WHEN SUPPLY AIR TEMPERATURE IS 5°F ABOVE THE SET POINT.
7. DURING HEATING MODE, SUPPLY AIR TEMPERATURE SHALL MAINTAIN AN AIR TEMPERATURE OF 60°F BY MODULATING THE AMOUNT OF GAS HEAT WITH SCR CONTROL. ALARM SHALL BE SENT WHEN SUPPLY AIR TEMPERATURE IS 5°F BELOW THE SET POINT.
8. DURING OCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL MODULATE BETWEEN ITS MINIMUM AND MAXIMUM OUTSIDE AIR SET POINT BASED ON CARBON DIOXIDE LEVELS MEASURED IN THE RETURN AIR DUCTWORK. DURING UNOCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL BE CLOSED.
9. CONTROLS SHALL MONITOR THE TEMPERATURE IN THE RETURN AIR DUCT AND THE MIXED AIR TEMPERATURE.
10. THE SUPPLY FAN SHALL MODULATE ITS FAN SPEED (THROUGH THE VFD) TO MAINTAIN A MAXIMUM OF 1.5" OF DIFFERENTIAL STATIC PRESSURE (MEASURED 2/3RDS DOWN THE MEDIUM PRESSURE SUPPLY DUCT, USER ADJUSTABLE). THE UNIT SHALL HAVE A SUPPLY PRESSURE RESET FUNCTION BASED ON THE POSITION OF THE HIGHEST DEMAND VAV BOX. THE SYSTEM SHALL RESET THE DIFFERENTIAL STATIC PRESSURE 0.05" (ADJUSTABLE) EVERY 10 MINUTES UNTIL THE HIGHEST DEMAND VAV BOX IS AT 100% DAMPER POSITION. IF THE HIGHEST DEMAND VAV BOX CAN NOT SUPPLY ADEQUATE AIRFLOW (WITHIN 10% OF DESIGN) THE STATIC RESET SHALL ADJUST HIGHER AT THE SAME RATE UNTIL SET POINT IS MET (SET POINT SHALL NOT EXCEED 1.5" DIFFERENTIAL STATIC PRESSURE).
11. WHEN SMOKE DETECTOR SENSES SMOKE IN THE RETURN AIR STREAM, THE UNIT SHALL SHUT DOWN. THE SUPPLY FAN MOTOR SHALL STOP AND THE OUTSIDE AIR INTAKE SHALL FULLY CLOSE.
12. OUTSIDE AIRFLOW SHALL BE MEASURED AT THE OUTSIDE AIR INLET TO THE UNIT. THE CONTRACTOR SHALL PROVIDE THE EBTRON ADVANTAGE 2 PRODUCT (GOLD SERIES) TO MEASURE OUTSIDE AIR FLOW. THE OUTSIDE AIRFLOW SHALL BE LINKED WITH THE RETURN AIR CO2 AND OUTSIDE AIR CO2 TO MODULATE THE OUTSIDE AIR DAMPER TO WITHIN THE MINIMUM/MAXIMUM OUTSIDE AIRFLOW REQUIREMENTS.

DDC CONTROL SYSTEM - GENERAL NOTES

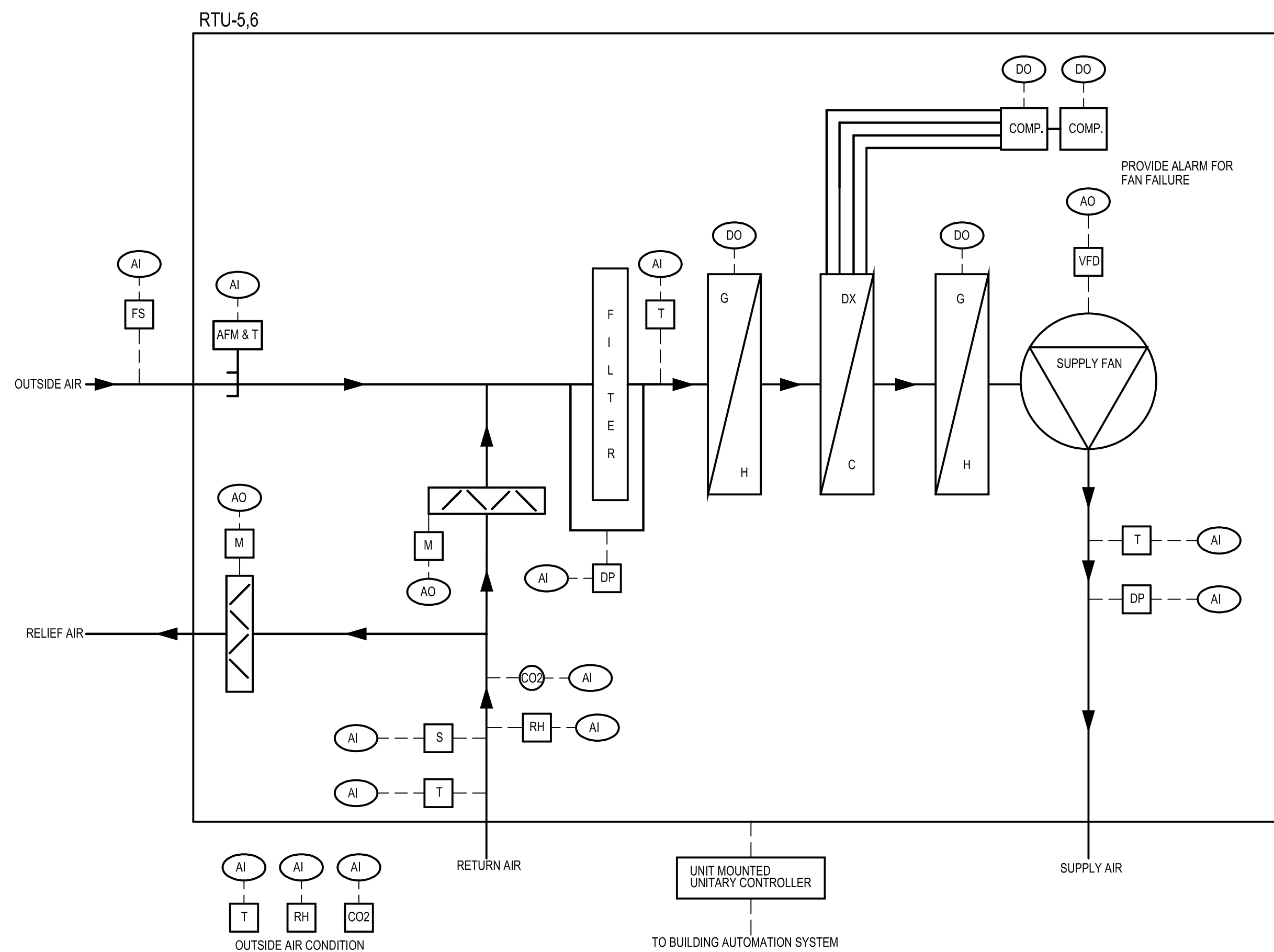
1. THE CONTROL SYSTEMS SHALL BE COMPLETE WITH ALL WIRING, CONDUIT, POWER SUPPLIES AND ALL OTHER ITEMS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM THAT WILL ACCOMPLISH THE SEQUENCE OF OPERATIONS, AND THE INTENT OF CONTROL DIAGRAMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL ASPECTS OF THE DDC CONTROL SYSTEM AND THE FIRE ALARM/SUPPRESSION SYSTEMS TO ENSURE THAT THE SYSTEMS OPERATE AS REQUIRED BY THESE DOCUMENTS AND NATIONAL AND LOCAL CODES.
2. ALL COMMUNICATIONS WIRING TO BE SHIELDED TWISTED WIRE PAIR.
3. ALL COMMUNICATIONS WIRING TO WALL MOUNTED CONTROLLERS SHALL BE ROUTED IN CONDUIT. CONDUIT TO EXTEND UP TO ABOVE CEILING OR EXPOSED ROOF STRUCTURE.
4. PROVIDE A PROGRAMMABLE ELECTRONIC HVAC CONTROLS SYSTEM EQUAL TO THE RELIABLE CONTROLS SYSTEM (OR APPROVED EQUAL). THE SYSTEM SHALL BE CAPABLE OF INTERFACING TO AND CONTROLLING THE MECHANICAL EQUIPMENT IN THE MECHANICAL FLOOR PLAN. SYSTEM SHALL BE CAPABLE OF ALARMING AND SYSTEM CONTROL DESCRIBED IN THE SEQUENCE OF OPERATION. CONTRACTOR SHALL PROVIDE AN INTEGRATED FRONT END.
5. THE CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY ELECTRICAL POWER NEEDED FOR THE BAS. THE INSTALLATION OF THESE POWER SYSTEMS SHALL BE IN FULL ACCORDANCE WITH THE ELECTRICAL SPECIFICATIONS.

SYMBOL LIST

SYMBOL	DESCRIPTION
	OPPOSED BLADE DAMPER
	HEATING OR COOLING COIL
	FAN OR PUMP MOTOR
	PRESSURE TRANSMITTER
	SMOKE DETECTOR
	TEMPERATURE SENSOR
	THERMOSTAT
	TERMINAL CONTROL UNIT
	VARIABLE FREQUENCY DRIVE
	VAV DAMPER W/FLOW MONITOR
	DDC DIGITAL INPUT POINT
	DDC DIGITAL OUTPUT POINT
	DDC ANALOG INPUT POINT
	DDC ANALOG OUTPUT POINT
	MOTOR
	MOTOR STARTER
	CO2 SENSOR
	ENTHALPY SENSOR, ECONOMIZER
	HIGH STATIC PRESS. LIMIT SENS.
	VFD (DUCT) PRESSURE SENSOR
	THERMOSTAT/TEMPERATURE SENSOR
	AIR FLOW MONITORING STATION
	FLOW SENSOR
	CURRENT SENSOR

1 RTU-1,2,3,4 - SEQUENCE OF OPERATIONS

SCALE: NO SCALE



SEQUENCE OF OPERATION - RTU'S 5,6

1. THE CONTROLS CONTRACTOR SHALL COORDINATE WITH ROOFTOP UNIT MANUFACTURER FOR PROVIDING CONTROLLER FOR ROOFTOP UNIT. CONTROLS CONTRACTOR SHALL PROVIDE THE NECESSARY CONTROLLER FROM THE ROOFTOP UNIT MANUFACTURER. THE CONTROLLER SHALL HAVE THE NECESSARY POINTS AND SEQUENCE OF OPERATION AS REQUIRED BY THE CONTROLS DOCUMENTS. THE CONTROLS SHALL BE ENERGIZED TO OPERATE CONTINUOUSLY.
2. SUPPLY FAN OFF. WHEN THE SUPPLY FAN IS OFF, THE COMPRESSORS, AND GAS HEAT SHALL BE OFF.
3. PROVIDE UNIT WITH START/STOP ABILITY BASED ON A TIME-OF-DAY SCHEDULE WITH THE ABILITY FOR OPTIMUM START.
4. PROVIDE SUPPLY FAN STATUS (VFD OPERATIONS: HERTZ). PROVIDE AN ALARM FOR FAN FAILURE.
5. MONITOR SUPPLY AIR TEMPERATURE AND TRANSMIT TO USER INTERFACE.
6. DURING COOLING MODE, SUPPLY AIR TEMPERATURE SHALL MAINTAIN AN AIR TEMPERATURE OF 55°F BY MODULATING ONE OF THE VFD SCROLL COMPRESSORS. WHEN ONE OF THE VFD SCROLL COMPRESSORS IS AT 100% LOAD FOR 5 MINUTES AND THE LEAVING AIR TEMPERATURE IS NOT SATISFIED ANOTHER SCROLL COMPRESSOR SHALL COME ONLINE. ALARM SHALL BE SENT WHEN SUPPLY AIR TEMPERATURE IS 5°F ABOVE THE SET POINT.
7. DURING HEATING MODE, SUPPLY AIR TEMPERATURE SHALL MAINTAIN AN AIR TEMPERATURE OF 85°F BY MODULATING THE AMOUNT OF GAS HEAT WITH SCR CONTROL. ALARM SHALL BE SENT WHEN SUPPLY AIR TEMPERATURE IS 5°F BELOW THE SET POINT.
8. DURING OCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL MODULATE BETWEEN ITS MINIMUM AND MAXIMUM OUTSIDE AIR SET POINT BASED ON CARBON DIOXIDE LEVELS MEASURED IN THE RETURN AIR DUCTWORK. DURING UNOCCUPIED MODE THE OUTSIDE AIR DAMPER SHALL BE CLOSED.
9. CONTROLS SHALL MONITOR THE TEMPERATURE IN THE RETURN AIR DUCT AND THE MIXED AIR TEMPERATURE.
10. CO2 MONITORING: PROVIDE CO2 ZONE SENSORS TO MEASURE WITHIN PLUS OR MINUS 50 PPM (ADJUSTABLE). MODULATE OUTSIDE AIR DAMPER TO MAINTAIN CO2 LEVELS. CO2 LEVELS SHALL NOT EXCEED 700 PPM (ADJUSTABLE) ABOVE OUTDOOR AIR LEVELS. OUTSIDE AIR DAMPER SHALL MODULATE PROPORTIONALLY AS THE CO2 LEVELS IN THE SPACE INCREASES ABOVE OUTDOOR AIR LEVELS UNTIL DAMPER HAS REACHED ITS MAXIMUM POSITION AS SCHEDULED.
11. DEHUMIDIFICATION: WHEN SPACE HUMIDITY INCREASES BEYOND 55% RH SUB-COOLING SHALL BE ACTIVATED. WHEN TEMPERATURE IN THE SPACE FALLS BELOW SETPOINT HOT-GAS REHEAT SHALL BE ACTIVATED. WHEN SPACE HUMIDITY FALLS BELOW 50% RH DEHUMIDIFICATION SHALL BE DEACTIVATED.
12. WHEN SMOKE DETECTOR SENSES SMOKE IN THE RETURN AIR STREAM, THE UNIT SHALL SHUT DOWN. THE SUPPLY FAN MOTOR SHALL STOP AND THE OUTSIDE AIR INTAKE SHALL FULLY CLOSE.
13. OUTSIDE AIRFLOW SHALL BE MEASURED AT THE OUTSIDE AIR INLET TO THE UNIT. THE CONTRACTOR SHALL PROVIDE THE EBTRON ADVANTAGE 2 PRODUCT (GOLD SERIES) TO MEASURE OUTSIDE AIR FLOW. THE OUTSIDE AIRFLOW SHALL BE LINKED WITH THE RETURN AIR CO2 AND OUTSIDE AIR CO2 TO MODULATE THE OUTSIDE AIR DAMPER TO WITHIN THE MINIMUM/MAXIMUM OUTSIDE AIRFLOW REQUIREMENTS.

2 RTU-5,6 - SEQUENCE OF OPERATIONS

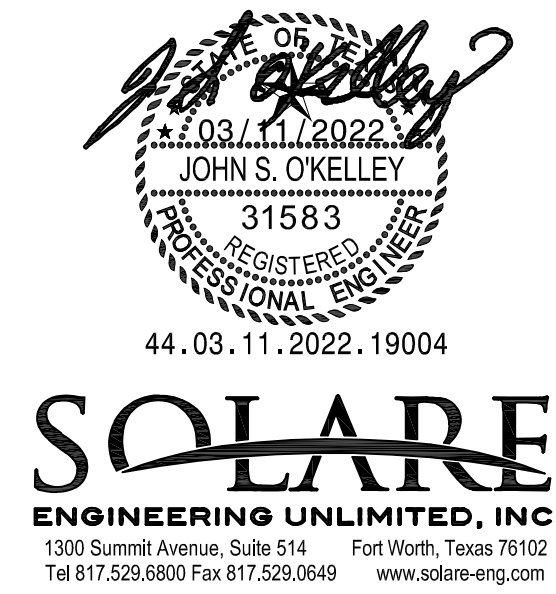
SCALE: NO SCALE

NO.	SYMBOL	DESCRIPTION	DATE	APPROVED

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POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION
 101 W. Church Street
 Livingston, TX 77351
 MECHANICAL CONTROLS

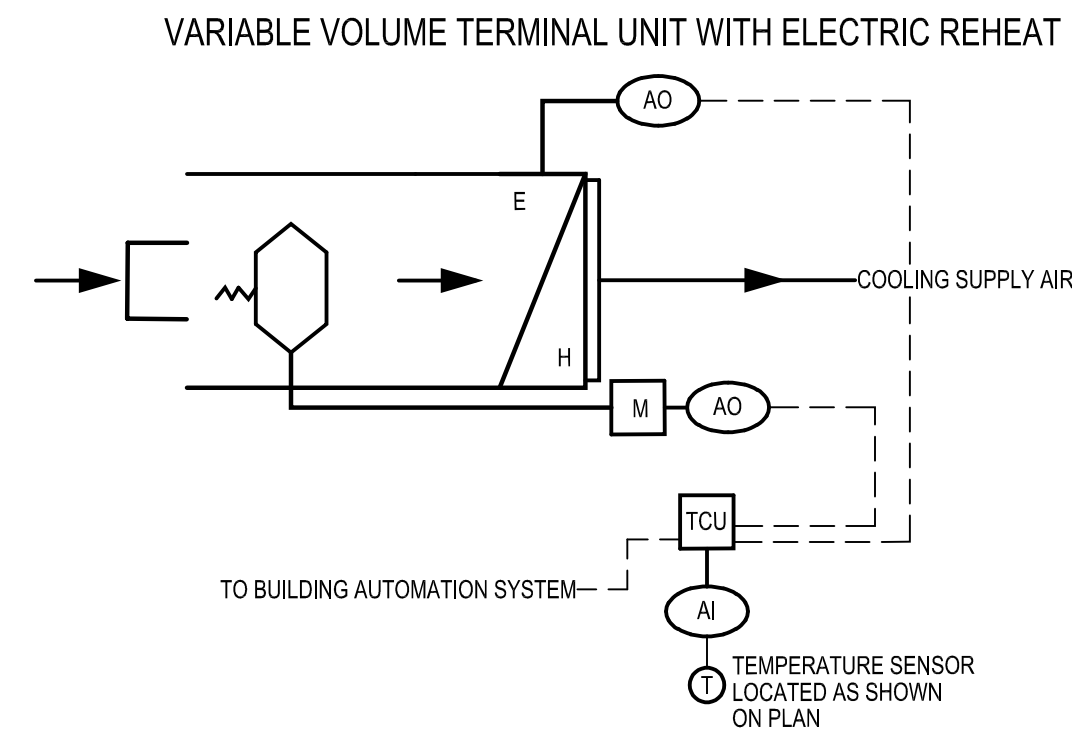


SHEET SIZE	22 x 34
SCALE	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	

M5.01

DDC CONTROL SYSTEM - GENERAL NOTES

1. THE CONTROL SYSTEMS SHALL BE COMPLETE WITH ALL WIRING, CONDUIT, POWER SUPPLIES AND ALL OTHER ITEMS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM THAT WILL ACCOMPLISH THE SEQUENCE OF OPERATIONS, AND THE INTENT OF CONTROL DIAGRAMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL ASPECTS OF THE DDC CONTROL SYSTEM AND THE FIRE ALARM/SUPPRESSION SYSTEMS TO ENSURE THAT THE SYSTEMS OPERATE AS REQUIRED BY THESE DOCUMENTS AND NATIONAL AND LOCAL CODES.
2. ALL COMMUNICATIONS WIRING TO BE SHIELDED TWISTED WIRE PAIR.
3. ALL COMMUNICATIONS WIRING TO WALL MOUNTED CONTROLLERS SHALL BE ROUTED IN CONDUIT. CONDUIT TO EXTEND UP TO ABOVE CEILING OR EXPOSED ROOF STRUCTURE.
4. PROVIDE A PROGRAMMABLE ELECTRONIC HVAC CONTROL SYSTEM EQUAL TO THE RELIABLE CONTROL SYSTEM (OR APPROVED EQUAL). THE SYSTEM SHALL BE CAPABLE OF INTERFACING TO AND CONTROLLING THE MECHANICAL EQUIPMENT IN THE MECHANICAL FLOOR PLAN. SYSTEM SHALL BE CAPABLE OF ALARMING AND SYSTEM CONTROL DESCRIBED IN THE SEQUENCE OF OPERATION. CONTRACTOR SHALL PROVIDE AN INTEGRATED FRONT END.
5. THE CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY ELECTRICAL POWER NEEDED FOR THE BAS. THE INSTALLATION OF THESE POWER SYSTEMS SHALL BE IN FULL ACCORDANCE WITH THE ELECTRICAL SPECIFICATIONS.



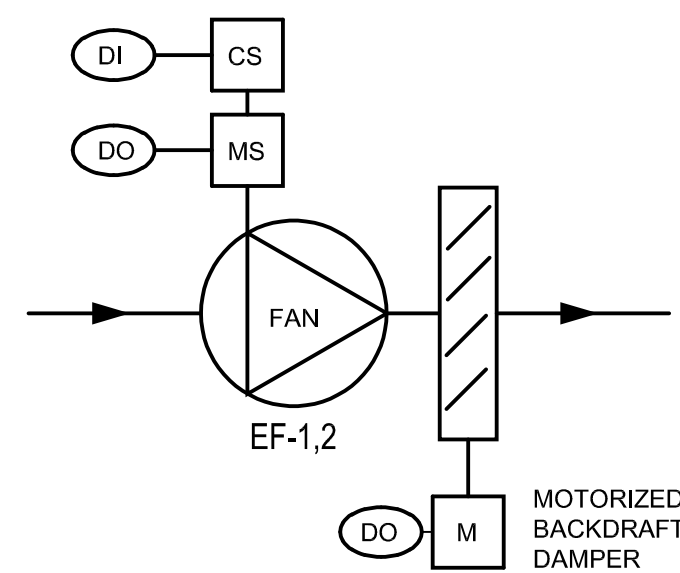
SEQUENCE OF OPERATION - VAV BOX WITH ELECTRIC REHEAT

1. PROVIDE A CONTROLLER THAT SHALL HAVE THE NECESSARY POINTS AND SEQUENCE OF OPERATION AS REQUIRED BY THE CONTROLS DOCUMENTS. THE AUTOMATIC CONTROLS SHALL BE ENERGIZED TO OPERATE CONTINUOUSLY.
2. MONITOR ZONE TEMPERATURE THROUGH TEMPERATURE SENSOR. SET OCCUPIED MODE AT 75 DEGREES F (USER ADJUSTABLE) FOR COOLING SET POINT AND 70 DEGREES F (USER ADJUSTABLE) FOR HEATING SET POINT. SET UNOCCUPIED MODE AT 85 DEGREES F (USER ADJUSTABLE) FOR COOLING SET POINT AND 55 DEGREES F (USER ADJUSTABLE) FOR HEATING SET POINT. THE USER SHALL BE ABLE TO CHANGE THE TEMPERATURE SET POINT WITHIN 2 DEGREES FOR COOLING AND HEATING.
3. WHEN TEMPERATURE IS ABOVE COOLING SET POINT (UNOCCUPIED/OCCUPIED MODE), VAV DAMPER SHALL MODULATE BETWEEN MINIMUM AND MAXIMUM AIRFLOW SET POINTS UNTIL ZONE MATCHES SET POINT. THE ELECTRIC HEAT SHALL REMAIN OFF.
4. WHEN TEMPERATURE IS BETWEEN HEATING AND COOLING SETPOINT(UNOCCUPIED/OCCUPIED MODE),THE VAV DAMPER SHALL BE IN IT MINIMUM POSITION AND THE HEATING COIL SHALL BE OFF.
5. WHEN TEMPERATURE IS BELOW HEATING SETPOINT(UNOCCUPIED/OCCUPIED MODE), VAV DAMPER SHALL BE IN MINIMUM HEATING AIRFLOW SET POINT. THE ELECTRIC HEAT SHALL STAGE ON UNTIL HEATING SET POINT IS ACHIEVED.
6. ALLOW THE OCCUPANT TO OVERRIDE SET SCHEDULE (AT TEMPERATURE SENSOR) TO SET SYSTEM IN OCCUPIED MODE. SET SCHEDULE SHALL REVERT BACK AFTER 60 MINUTES (USER ADJUSTABLE).

1 VAV BOX WITH ELECTRIC REHEAT - SEQUENCE OF OPERATIONS
SCALE: NO SCALE

SEQUENCE OF OPERATION

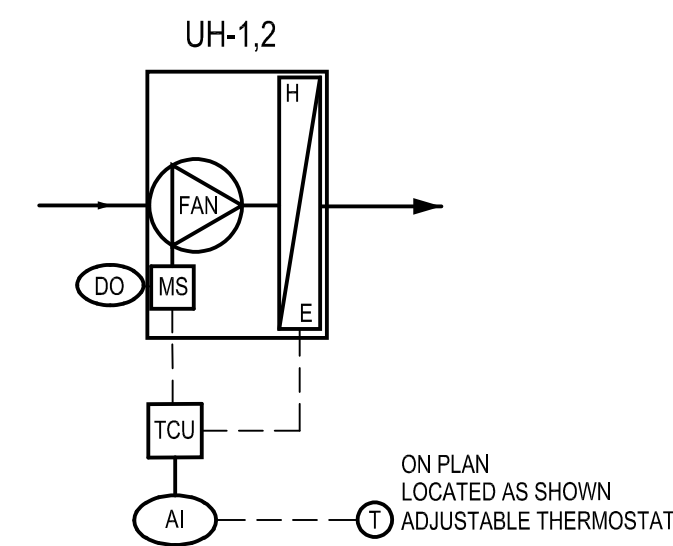
1. EXHAUST FAN SHALL OPERATE CONTINUOUSLY AT SCHEDULED CFM.
2. FAN STATUS SHALL BE MONITORED BY BAS, IF FAN FAILS TO OPERATE WHEN REQUIRED AN ALARM SHALL BE GENERATED BY THE DDC CONTROLS.
3. FAN SHALL DE-ENERGIZE ON COMMAND FROM FIRE ALARM SYSTEM.
4. THE FAN SHALL BE INTERLOCKED WITH ASSOCIATED MOTORIZED DAMPER. DAMPER SHALL POWER OPEN WHEN FAN IS ENERGIZED AND SPRING CLOSE WHEN FAN IS DE-ENERGIZED.



2 EXHAUST FAN - SEQUENCE OF OPERATIONS
SCALE: NO SCALE

SEQUENCE OF OPERATION - TYPICAL EUH

1. WHEN THE HEATER(S) ARE OFF THE FAN IS OFF AND THE HEATING ELEMENTS ARE DE-ENERGIZED.
2. ELECTRIC UNIT HEATER SHALL OPERATE TO MAINTAIN SPACE WINTER DESIGN TEMPERATURES. WHEN THE UNIT HEATERS THERMOSTAT INDICATED A DROP IN THE SPACES TEMPERATURE BELOW THE WINTER SET POINT 50° F (ADJUSTABLE) AND AIR FLOW HAS BEEN PROVEN, THE ELECTRIC HEATING COIL IN THE UNIT HEATER SHALL BE ENERGIZED. WHEN SPACE TEMPERATURE REACHES 60° F (ADJUSTABLE) HEATER SHALL BE DE-ENERGIZED.
3. UNIT HEATERS SHALL BE CONTROLLED BY THE DDC SYSTEM. EACH ELECTRIC UNIT HEATER SHALL HAVE THE CAPABILITY OF BEING TURNED ON OF OFF FROM THE DDC CONTROL PANEL.



3 ELECTRIC UNIT HEATER - SEQUENCE OF OPERATIONS
SCALE: NO SCALE

SYMBOL LIST

SYMBOL	DESCRIPTION
	OPPOSED BLADE DAMPER
	HEATING OR COOLING COIL
	FAN OR PUMP MOTOR
	PRESSURE TRANSMITTER
	SMOKE DETECTOR
	TEMPERATURE SENSOR
	THERMOSTAT
	TERMINAL CONTROL UNIT
	VARIABLE FREQUENCY DRIVE
	VAV DAMPER W/FLOW MONITOR
	DDC DIGITAL INPUT POINT
	DDC DIGITAL OUTPUT POINT
	DDC ANALOG INPUT POINT
	DDC ANALOG OUTPUT POINT
	MOTOR
	MOTOR STARTER
	CO2 SENSOR
	ENTHALPY SENSOR, ECONOMIZER
	HIGH STATIC PRESS. LIMIT SENS.
	VFD (DUCT) PRESSURE SENSOR
	THERMOSTAT/TEMPERATURE SENSOR
	AIR FLOW MONITORING STATION
	FLOW SENSOR
	CURRENT SENSOR

KOMATSU
ARCHITECTURE



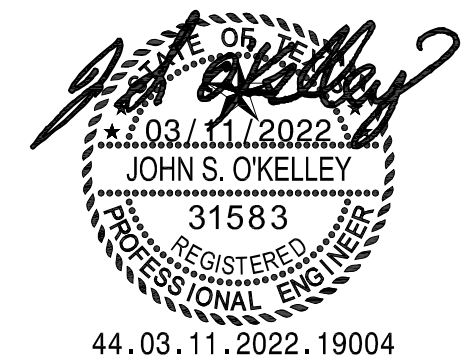
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POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

MECHANICAL CONTROLS

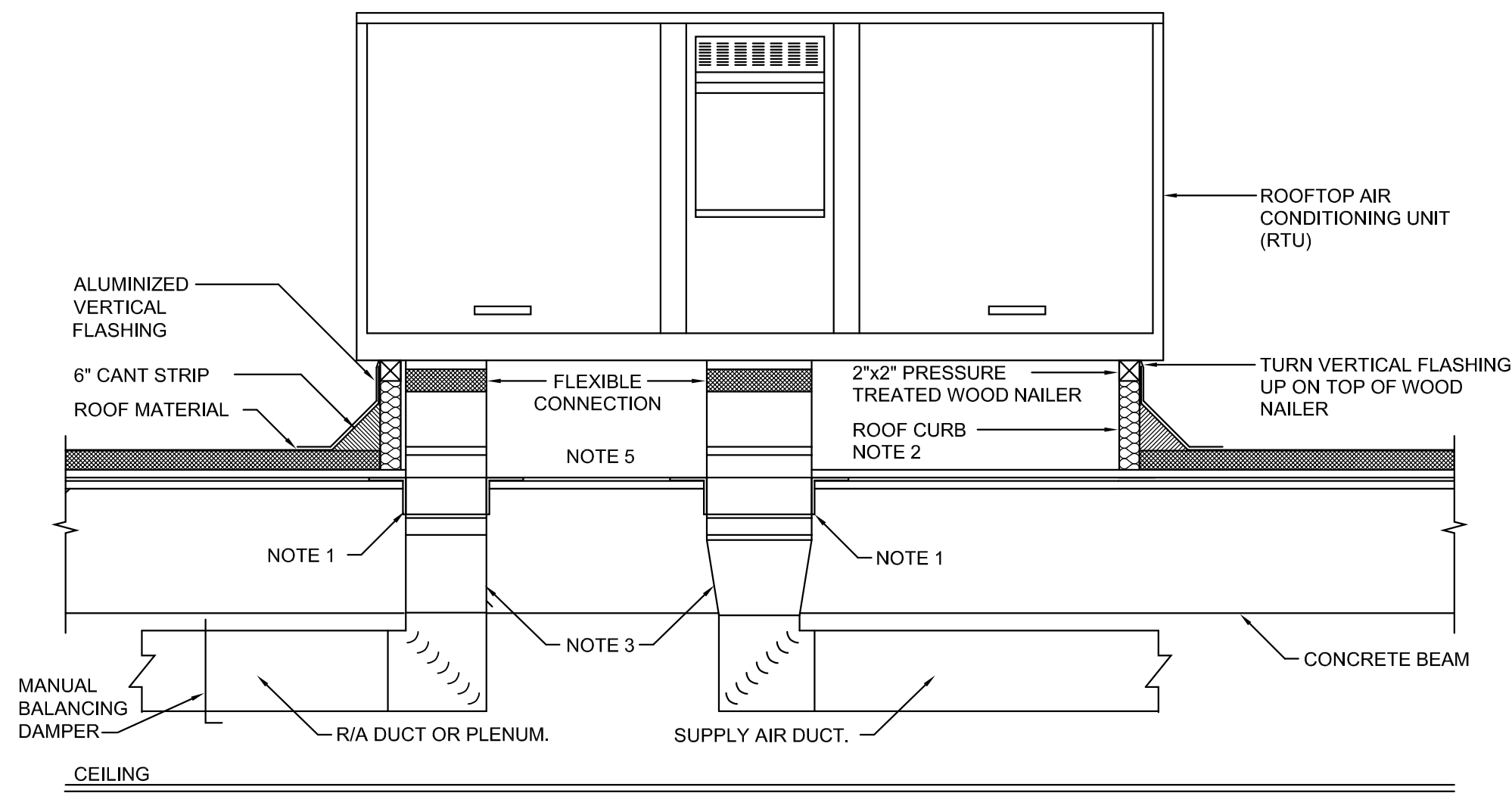


44.03.11.2022.19004

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SHEET SIZE	22 x 34
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KAI JOB NUMBER:	2017.171B
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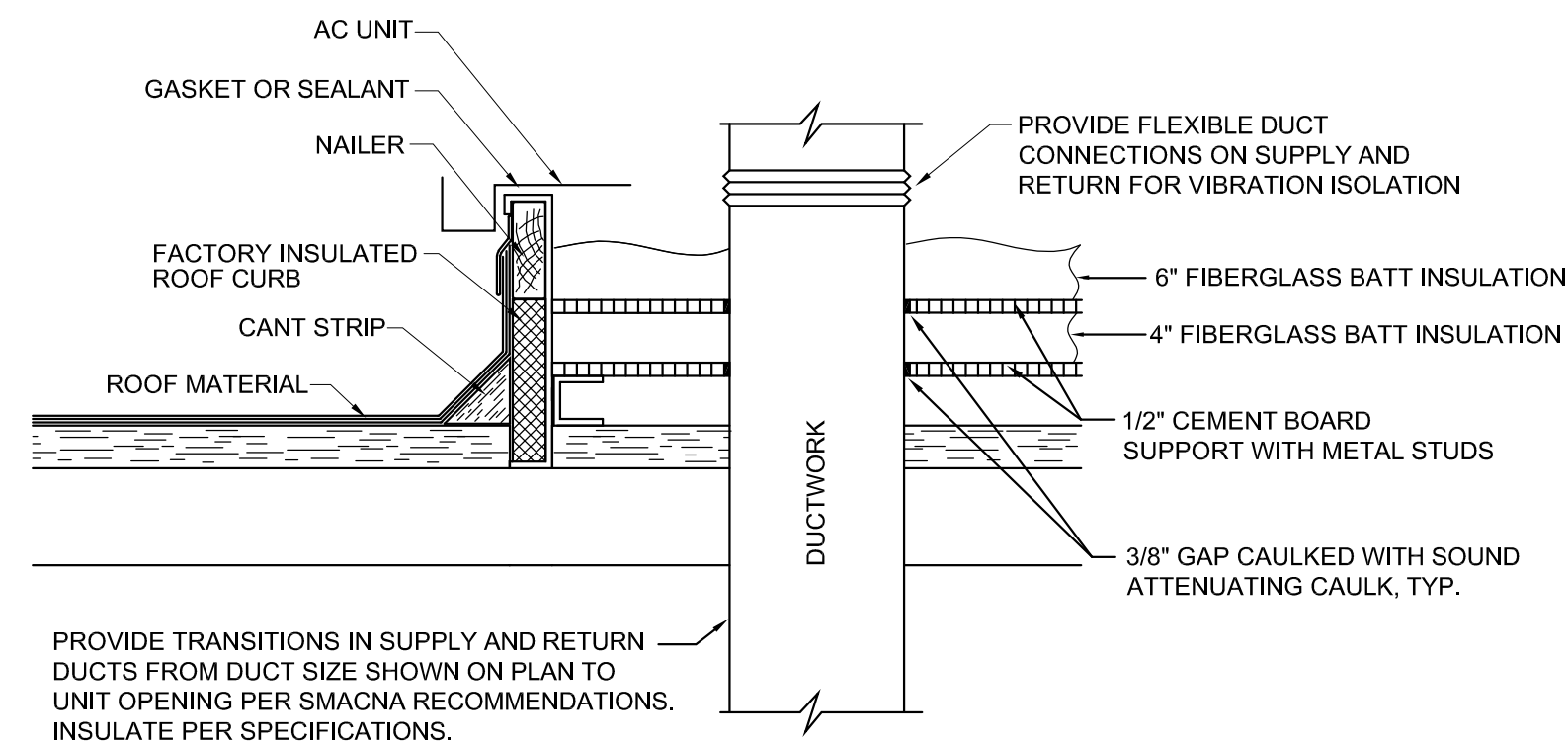
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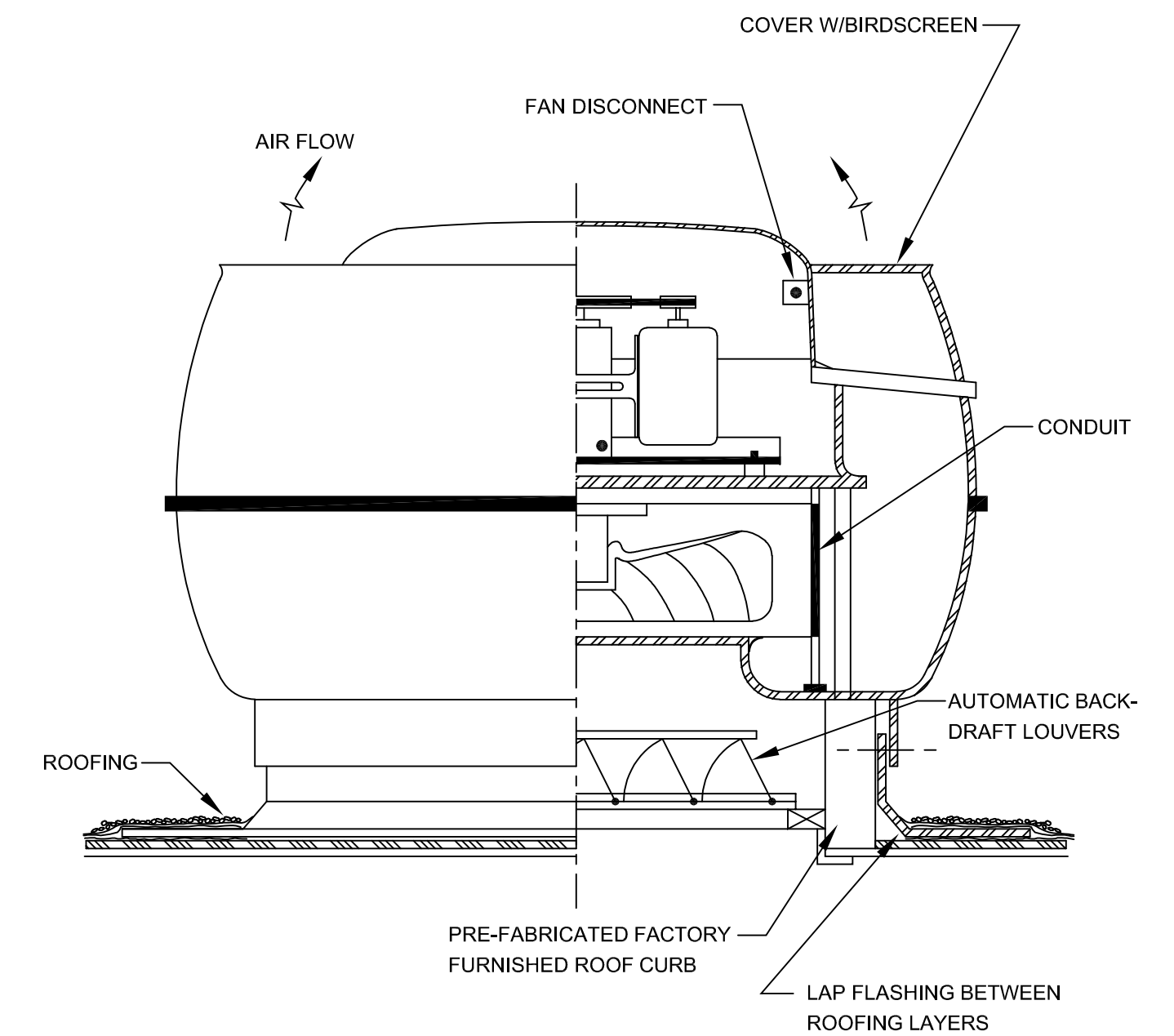
NOTES:

1. REFER TO STRUCTURAL DRAWINGS FOR SUPPORT REQUIREMENTS.
2. ALL RTU'S SHALL BE "PLUMB" AND SET LEVEL ON ROOF IN BOTH DIRECTIONS. THE VERTICAL DIMENSION OF THE CURB WALLS SHALL BE TAPERED AS REQUIRED TO COMPENSATE FOR THE ROOF SLOPE AND ALLOW THE RTU TO SET LEVEL. REFER TO THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ROOF SLOPE INFORMATION. CURB TO BE FACTORY INSULATED WITH MIN R-8 RIGID INSULATION, MIN 14" HIGH.
3. PROVIDE TRANSITION AND/OR OFFSET AS INDICATED OR REQUIRED.
4. THIS DETAIL IS TYPICAL FOR ALL RTU INSTALLATIONS.
5. REFER TO DETAIL THIS SHEET FOR SOUND ATTENUATION INSTALLATION.

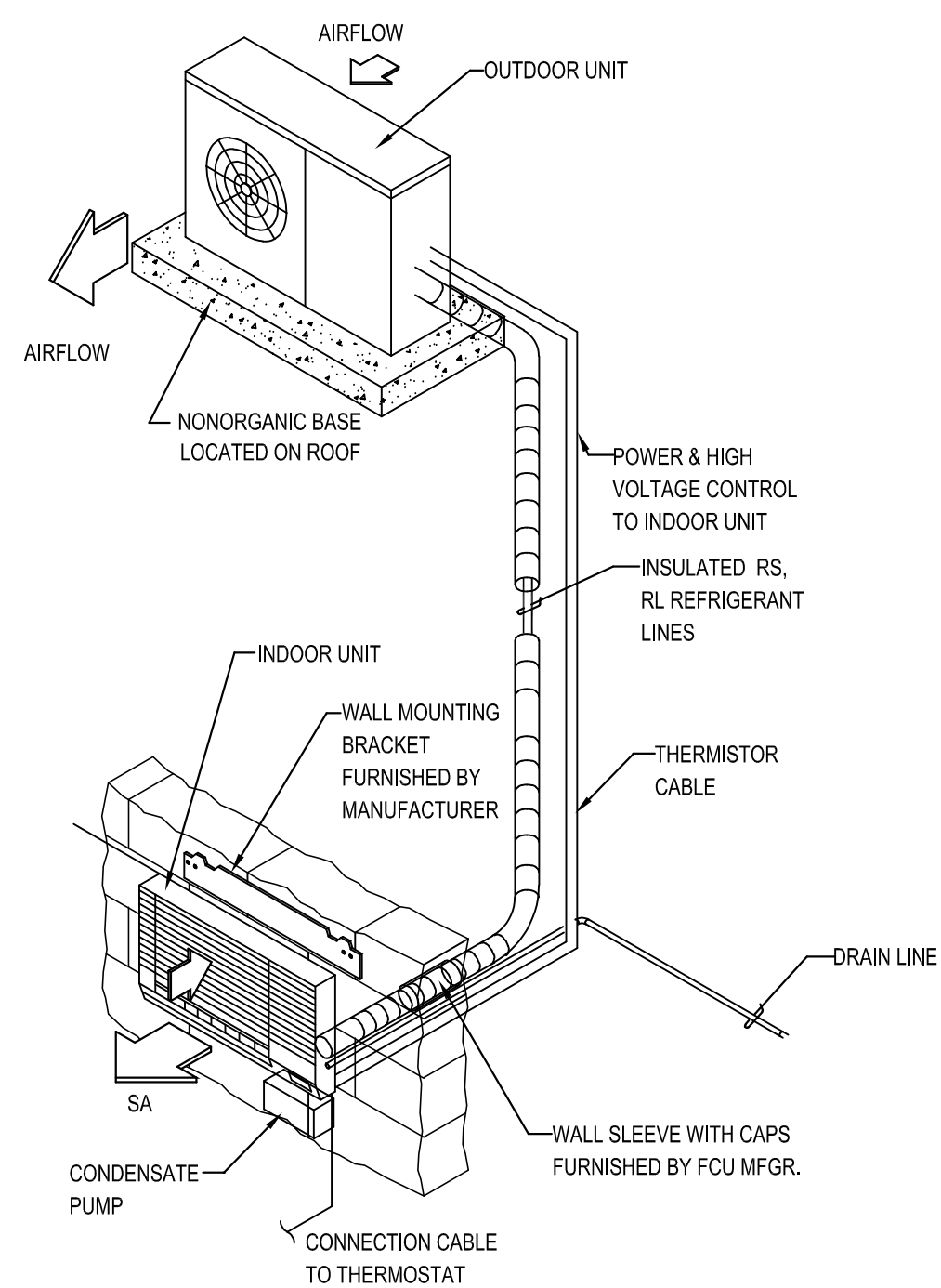
1 TYPICAL ROOFTOP UNIT MOUNTING
SCALE: NO SCALE



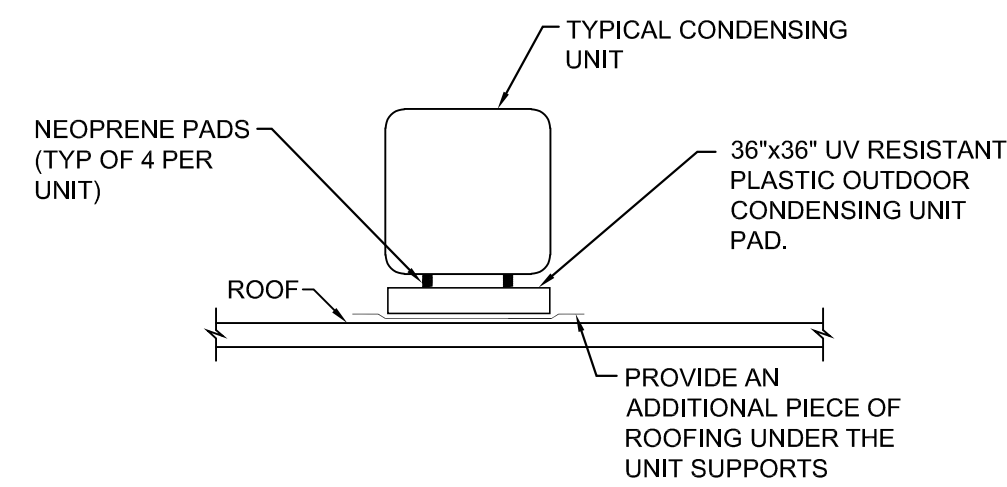
2 ROOFTOP UNIT SOUND ATTENUATION AND CURB INSTALLATION
SCALE: NO SCALE



3 TYPICAL UP BLAST ROOF EXHAUST FAN
SCALE: NO SCALE



4 TYPICAL DUCTLESS AIR CONDITIONER
SCALE: NO SCALE



5 TYPICAL CONDENSING UNIT ROOF PAD
SCALE: NO SCALE

NO.	DATE	DESCRIPTION	BY	APP. BY

KOMATSU ARCHITECTURE

ISSUED FOR CONSTRUCTION

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POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

MECHANICAL DETAILS

John S. Okelley

03/11/2022

JOHN S. OKELLEY

31583

REGISTERED PROFESSIONAL ENGINEER

44.03.11.2022.19004

SOLARE ENGINEERING UNLIMITED, INC.

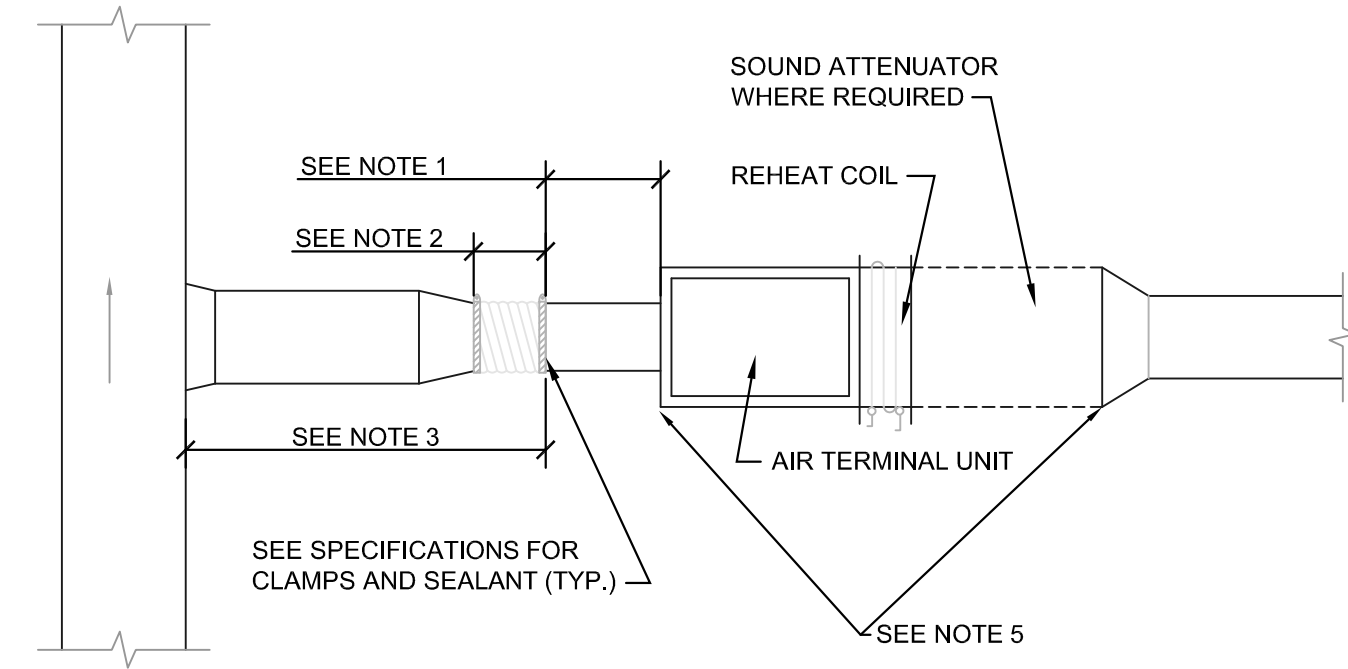
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M6.01

SHEET SIZE = ANSI D 22x34

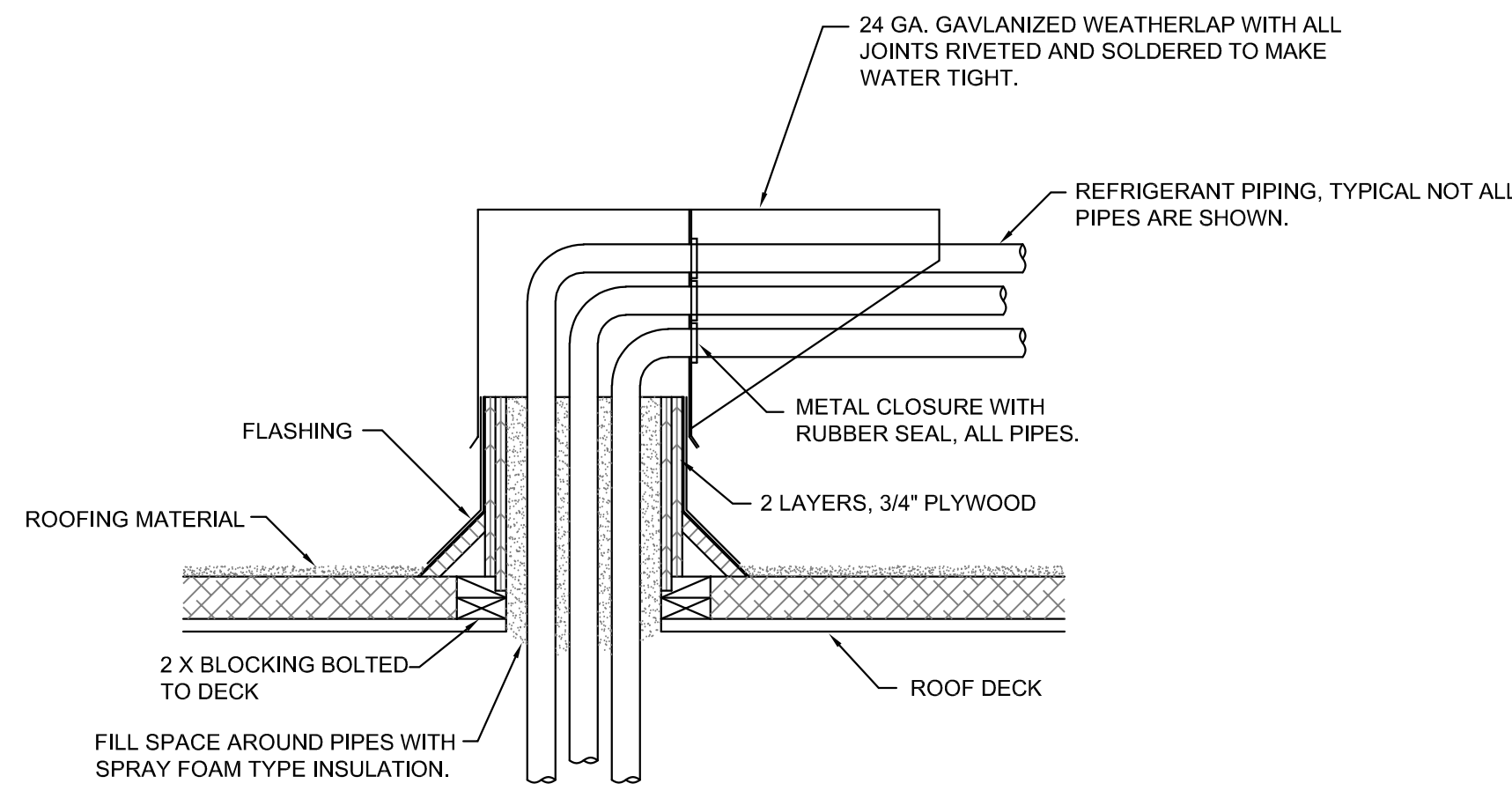
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NOTE:

1. RIGID STRAIGHT TERMINAL UNIT INLET LENGTH SHALL BE A MINIMUM OF 3 TIMES THE DIAMETER OF INLET
2. PROVIDE FLEXIBLE AIR DUCT CONNECTOR ONLY WHERE NECESSARY TO ACCOMMODATE MINOR OFFSETS. MAXIMUM LENGTH 3'-0". OTHERWISE PROVIDE STRAIGHT RUN RIGID DUCT AS SHOWN.
3. A BRANCH DUCT SERVING AN INDIVIDUAL BOX MAY BE THE SAME SIZE AS THE BOX INLET, PROVIDED THE EQUIVALENT LENGTH OF THE BRANCH DUCT, AS SHOWN, DOES NOT EXCEED 10 FEET. FOR LONGER LENGTHS, INCREASE THE DUCT SIZE AND PROVIDE A DUCT TRANSITION TO MAINTAIN THE DUCT STATIC PRESSURE DROP AT OR BELOW 0.2"/100'.
4. FLEXIBLE AIR DUCT CONNECTORS, WHEN USED FROM TERMINAL UNIT SUPPLY AIR DUCT TO DIFFUSER, SHALL NOT EXCEED 5'-0". USE RIGID ELBOWS FOR CHANGE OF DIRECTION GREATER THAN 45°.
5. COMPONENT ARRANGEMENT MAY VARY BY MANUFACTURER. PROVIDE INSULATION W/VAPOR BARRIER FOR CONNECTING DUCT SECTIONS.
6. **BID ALTERNATE 1:** USE OF FINISHED RIGID DUCT WITH FIBERGLASS MESH & MASTIC TO BE UTILIZED IN LIEU OF FLEXIBLE CONNECTOR. MASTIC TO BE FIELD PAINTED TO MATCH FINISHED DUCT TO BE BID WITH ALTERNATE 1

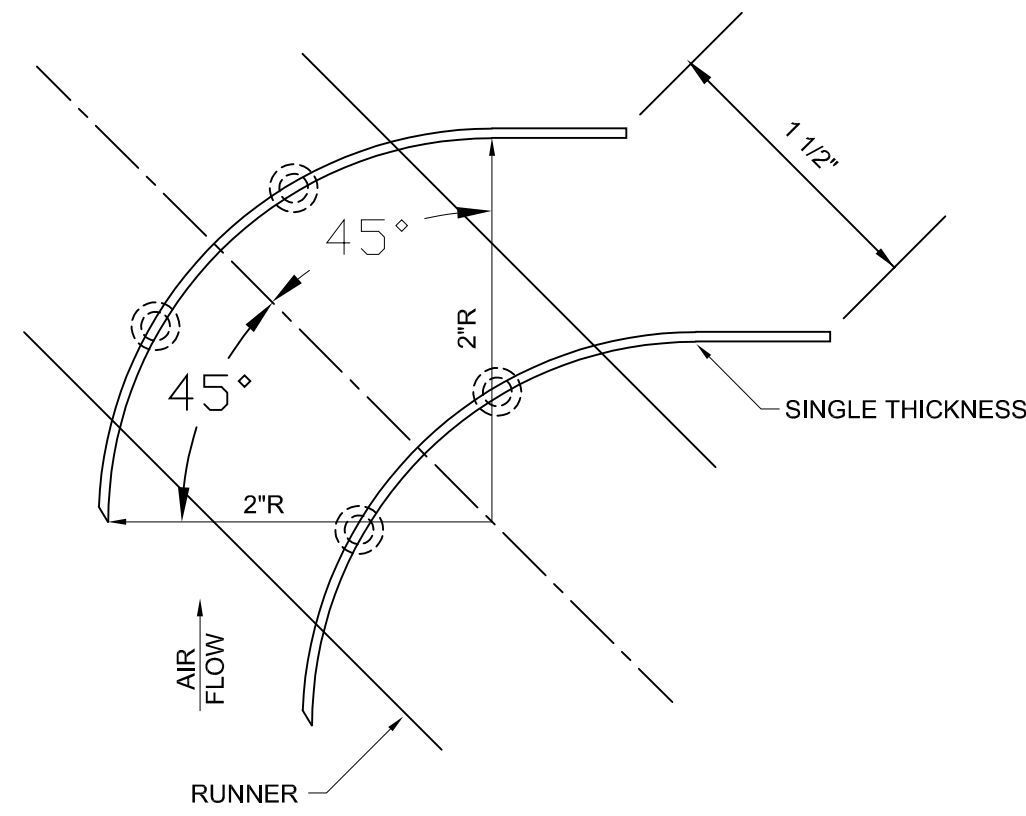
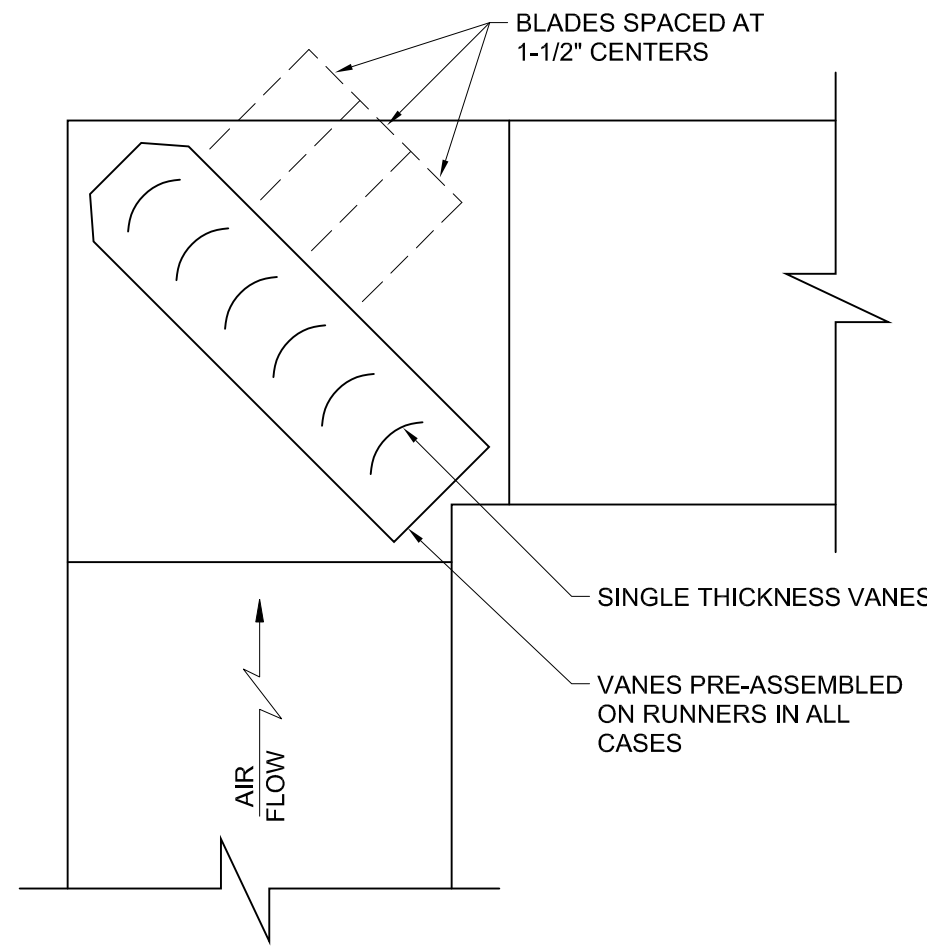
1 AIR TERMINAL UNIT - DUCT CONNECTIONS
SCALE: NO SCALE



NOTES:

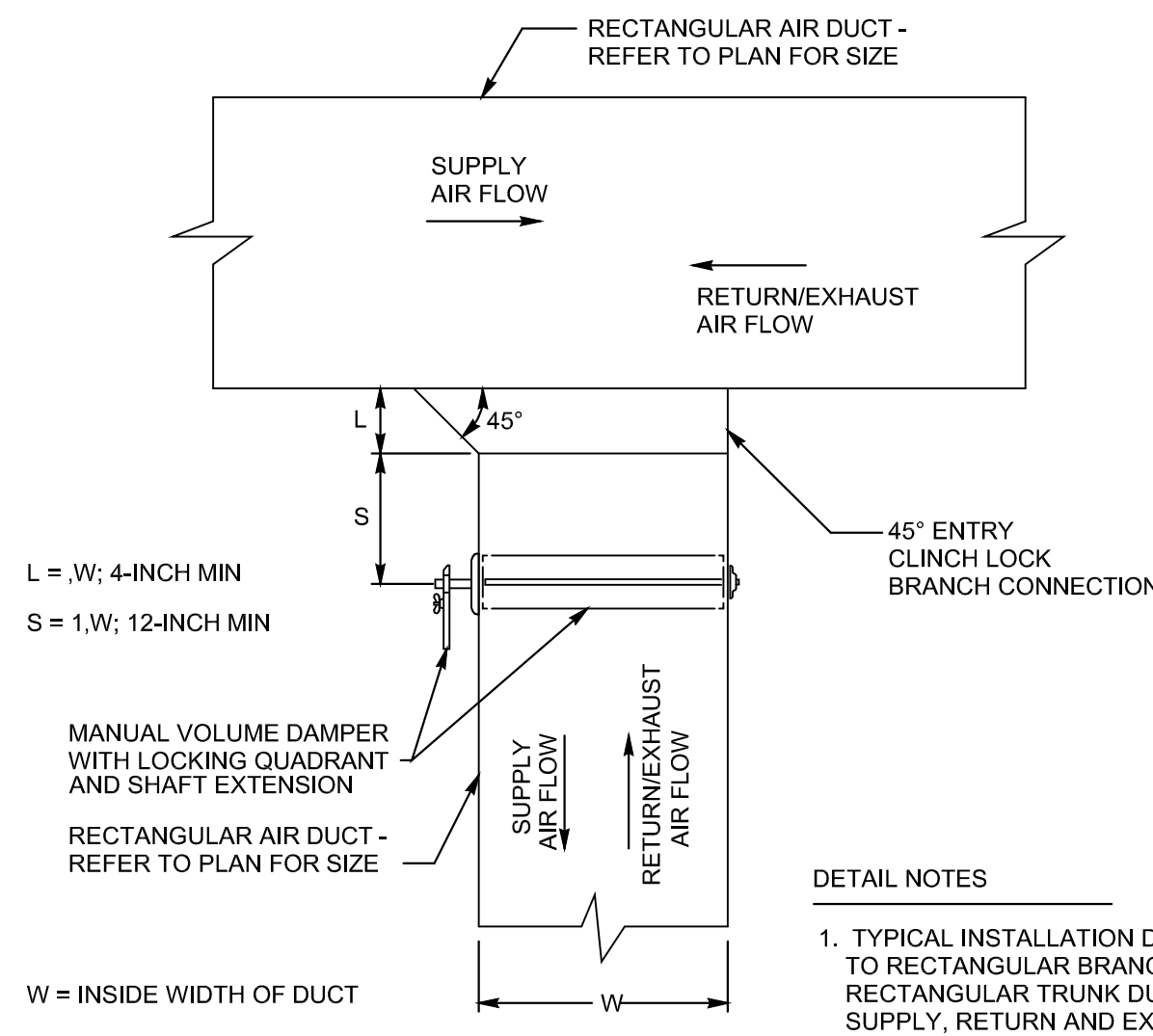
1. ALL EDGES SHALL BE ROLLED & TURNED DOWN. SHARP EDGES WILL NOT BE ACCEPTED.
2. SEAL AS REQUIRED TO MAKE ALL JOINTS & PENETRATIONS WATERTIGHT.
3. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND CONDITIONS
4. PIPE HOUSE SHALL BE INTERNALLY INSULATED WITH 2" DUCT LINER

2 TYPICAL ROOF REFRIGERANT PIPING PORTAL ASSEMBLY
SCALE: NO SCALE



3 TYPICAL SQUARE ELBOW
SCALE: NO SCALE

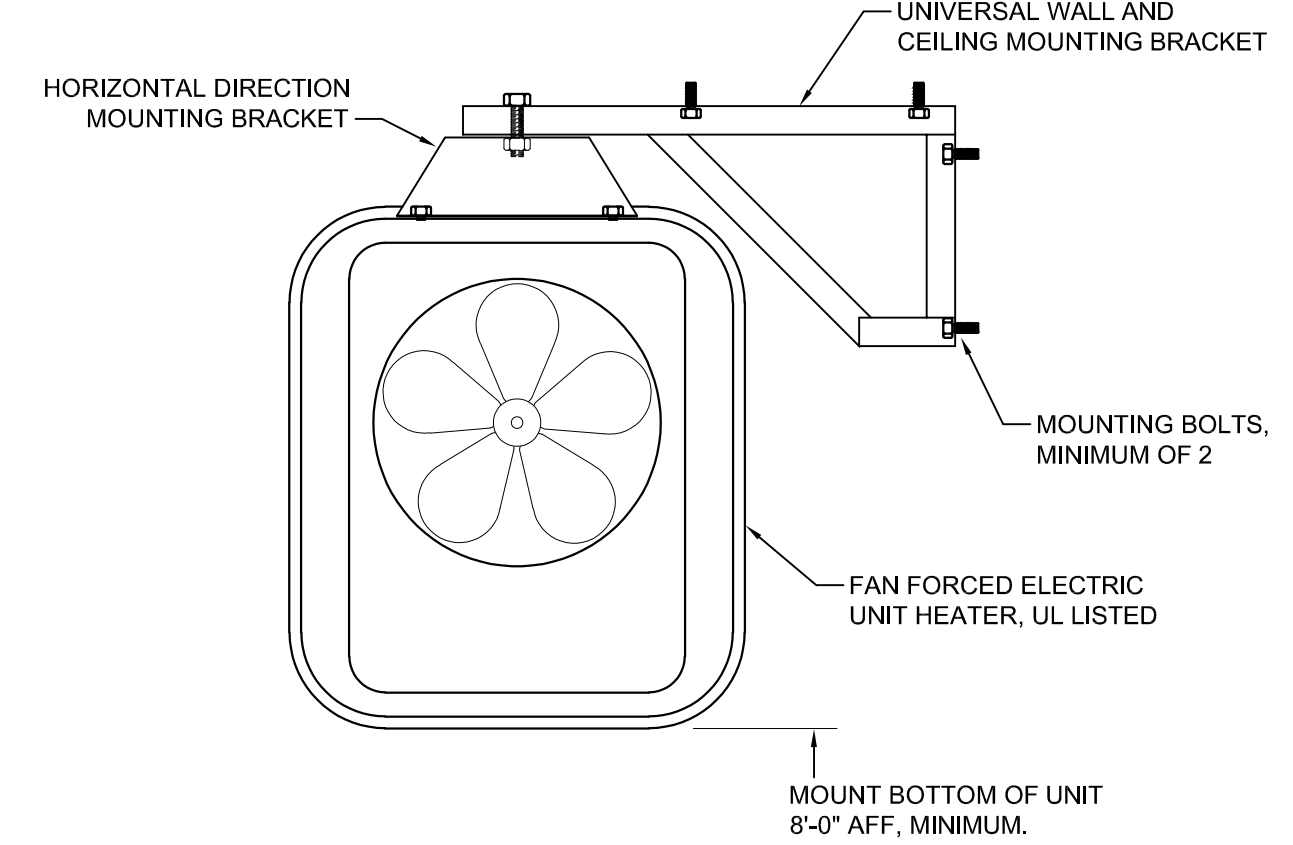
4 TYPICAL TURNING VANE
SCALE: NO SCALE



DETAIL NOTES

1. TYPICAL INSTALLATION DETAIL TO BE APPLIED TO RECTANGULAR BRANCH DUCT TAKEOFFS FROM RECTANGULAR TRUNK DUCTS. APPLIES TO SUPPLY, RETURN AND EXHAUST AIR DUCTS.

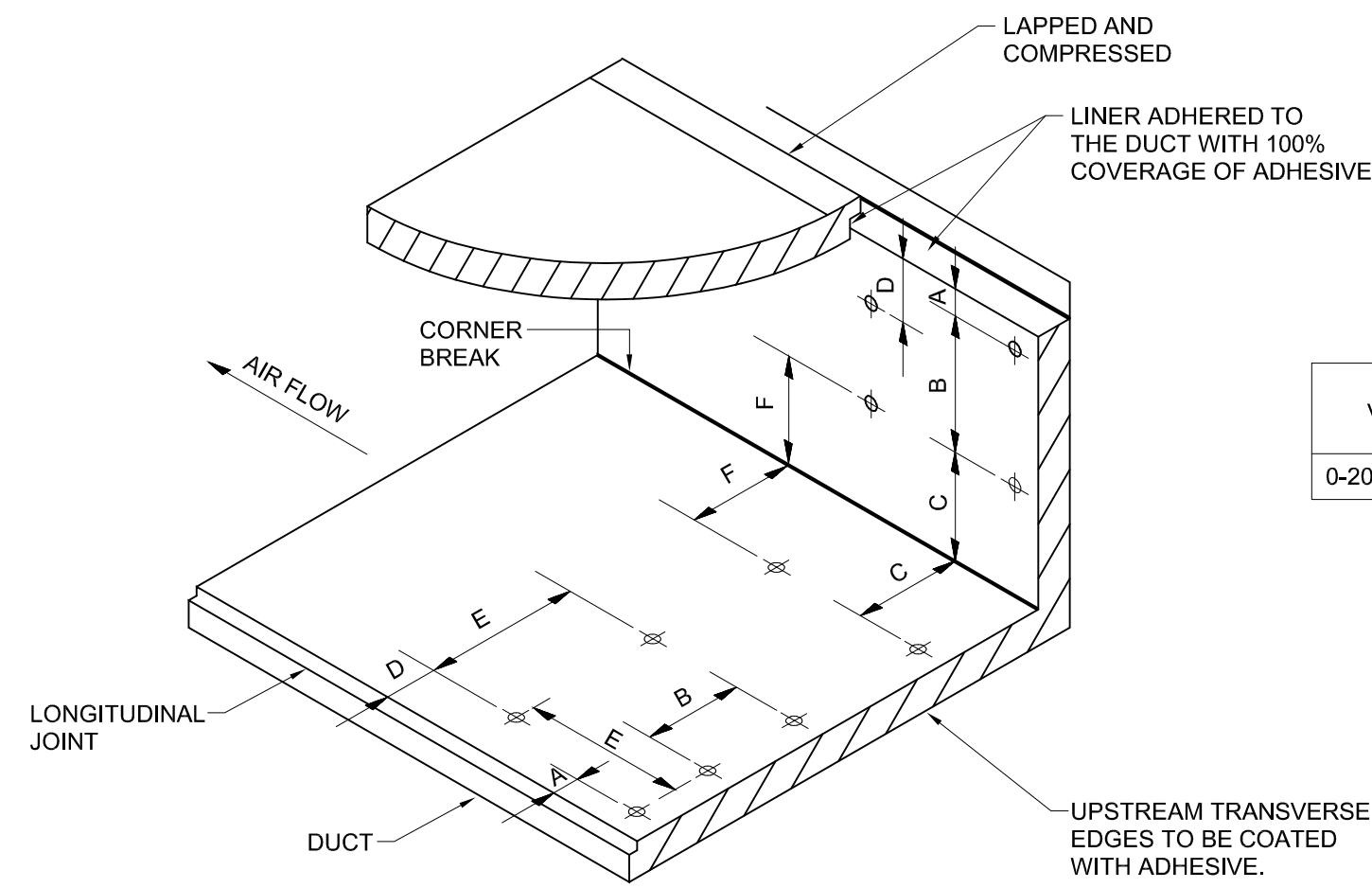
5 TYPICAL RECTANGULAR BRANCH TAKEOFF
SCALE: NO SCALE



NOTES:

1. OBSERVE MANUFACTURER'S CLEARANCE REQUIREMENTS.
2. PROVIDE WITH INTEGRAL THERMOSTAT AND CONTROL TRANSFORMER.

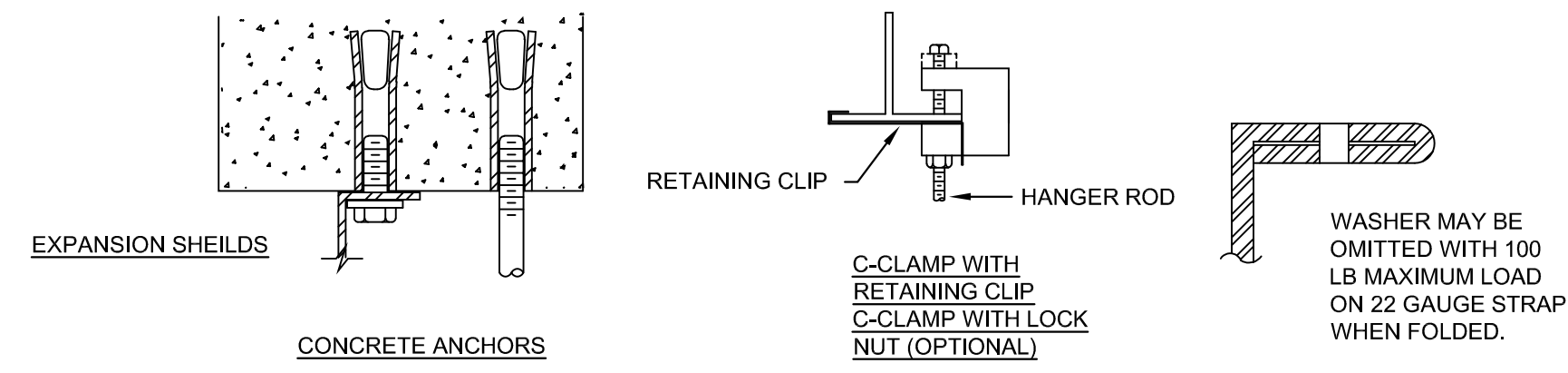
6 TYPICAL ELECTRIC UNIT HEATER
NO SCALE



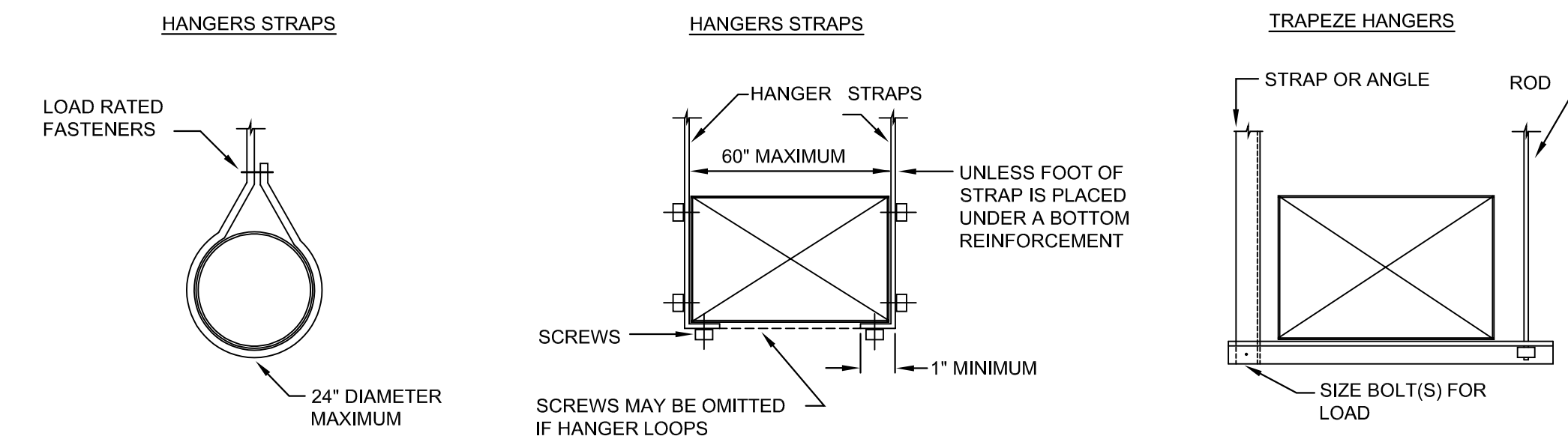
MAXIMUM SPACING FOR FASTENERS USED WITH FLEXIBLE DUCT LINER.

VELOCITY	UPSTREAM EDGE			MID-SECTION		
	A	B	C	D	E	F
0-2000 F.P.M.	3"	12"	12"	6"	18"	12"

7 TYPICAL FLEXIBLE DUCT LINER INSTALLATION
SCALE: NO SCALE



METHODS OF ATTACHMENT TO VARIOUS TYPES OF STRUCTURES - USE APPLICABLE TYPE



8 TYPICAL DUCT HANGERS
SCALE: NO SCALE

NO.	SYMBOL	DESCRIPTION	DATE	APPROVED

KOMATSU ARCHITECTURE
ISSUED FOR CONSTRUCTION

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POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION
101 W. Church Street
Livingston, TX 77351
MECHANICAL DETAILS

OR
John S. Okelley
03/11/2022
JOHN S. OKELLEY
31583
REGISTERED PROFESSIONAL ENGINEER
44.03.11.2022.19004
SOLARE ENGINEERING UNLIMITED, INC.
1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102
Tel 817.529.6500 Fax 817.529.0649 www.solare-eng.com

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	

M6.02











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ELECTRICAL SYMBOLS AND ABBREVIATIONS NOTE: ALL SYMBOLS AND ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS

















GENERAL NOTES

- ALL DEVICE PLATES SHALL BE NYLON COVERS. COLOR SHALL BE SELECTED BY THE ARCHITECT.
- ALL WALL MOUNTED DEVICES (LIGHT SWITCH, RECEPTACLES, ETC.) LOCATIONS TO COMPLY WITH TAS STIPULATED REACH RANGES. CONTRACTOR TO PROVIDE ELECTRICAL DEVICE SHOP DRAWINGS (EACH FLOOR) ANNOTATING DEVICE TYPE AND DIMENSIONED LOCATIONS FOR ARCHITECT REVIEW PURPOSES IN EFFORT TO COORDINATE LOCATIONS AND MITIGATE CONFLICT WITH ARCHITECTURAL TRIM AND/OR MILLWORK.
- COORDINATE EXACT LOCATIONS OF ALL LIGHTING FIXTURES IN ELECTRICAL/MECHANICAL SPACES WITH EQUIPMENT, DUCTWORK AND PIPING. CONTRACTOR TO PROVIDE ELECTRICAL LIGHTING SHOP DRAWINGS (EACH FLOOR) ANNOTATING LIGHT FIXTURE TYPE AND DIMENSIONED LOCATIONS FOR EACH. SHOP DRAWINGS TO BE SUBMITTED TO ARCHITECT FOR REVIEW PURPOSES IN EFFORT TO COORDINATE LOCATIONS IN RELATION TO EXPOSED BEAMS, FURR DOWNS AND/OR WALLS.
- ALL RECEPTACLE OUTLETS LOCATED WITHIN 6'-0" OF A WET BAR OR SINK SHALL BE GFI TYPE. ALL RECEPTACLE OUTLETS LOCATED OUTDOORS SHALL BE WP/GFI. ALL RECEPTACLES SERVING VENDING MACHINES SHALL BE GFI TYPE. ALL RECEPTACLES SERVING ELECTRIC WATER COOLERS SHALL BE GFI TYPE. ALL RECEPTACLES IN KITCHEN AREAS SHALL BE GFI TYPE.
- ALL CONDUIT PENETRATIONS THROUGH THE ROOF TO SERVE MECHANICAL EQUIPMENT SHALL BE WITHIN THE ASSOCIATED EQUIPMENT ROOF CURB. COORDINATE LOCATIONS OF PENETRATIONS WITH THE MECHANICAL CONTRACTOR.
- PROVIDE LIGHT FIXTURE MANUFACTURER PROVIDED OR RECOMMENDED MOUNTING HARDWARE AND TRIM NECESSARY FOR THE PROPER INSTALLATION OF SPECIFIED LIGHTING FIXTURES SERVING THE FINISH SUBSTRATE WHERE EACH FIXTURE IS TO BE INSTALLED (I.E. GYP, FURR DOWN, PLASTERED DECK, VAULTED CEILING, ETC.).
- PROVIDE ACCESS DOORS IN WALLS AND GYPSUM FURR DOWNS WHERE ACCESS TO CONCEALED ELECTRICAL BOXES AND DEVICES IS REQUIRED.
- EACH BRANCH AND FEEDER CIRCUIT SHALL BE PROVIDED WITH A GROUND CONDUCTOR SIZED PER ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE (NFPA 70), WHERE A CONDUIT CONTAINS MULTIPLE BRANCH CIRCUITS, PROVIDE A SINGLE GROUND CONDUCTOR UNLESS OTHERWISE NOTED.
- CONDUIT, LIGHT FIXTURES, AND OTHER COMPONENTS MAY BE SHOWN LARGER THAN ACTUAL SIZE. CONDUIT ROUTING IS SHOWN WITH AN EXAGGERATED SPACING FOR CLARITY. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL CONTRACTORS TO ENSURE CONDUIT PLACEMENT DOES NOT CONFLICT WITH LOCATION SENSITIVE COMPONENTS SUCH AS LIGHT FIXTURES.
- INTEGRATED EQUIPMENT RATINGS SHOWN ARE MINIMUMS. CONTRACTOR SHALL PROVIDE MANUFACTURER'S EQUAL OR NEXT HIGHER STANDARD RATINGS.
- ALL PULL CORD/WIRE PROVIDED FOR EMPTY RACEWAY/CONDUIT SYSTEMS SHALL HAVE A MINIMUM STRENGTH OF 200 LBS TENSILE STRENGTH. ALL EMPTY CONDUITS SHALL HAVE A PULL CORD.
- PROVIDE LUGS AS REQUIRED FOR ALL ELECTRICAL EQUIPMENT TO ACCEPT THE SIZE AND NUMBER OF CONDUCTORS SHOWN IN THESE DOCUMENTS.
- THE LIGHTING PLANS INDICATE SWITCHING AND BRANCH CIRCUIT NUMBERS FOR ALL LIGHTING FIXTURES. LOWER CASE LETTERS AT SWITCHES AND LIGHTING FIXTURES INDICATE SWITCHING WHERE THE CONTROL PATTERN IS NOT OBVIOUS. INSTALL BRANCH CIRCUIT WIRING IN RACEWAY TO ALL RIGIDLY ATTACHED LIGHTING FIXTURES, AND TO JUNCTION BOXES FOR ALL LAY-IN LIGHTING FIXTURES, AS REQUIRED TO PROVIDE SWITCHING AND CIRCUITING AS SHOWN ON THE DRAWINGS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ALL LAY-IN LIGHTING FIXTURES SHALL BE CONNECTED TO A BRANCH CIRCUIT JUNCTION BOX WITH A FLEXIBLE FIXTURE TAIL. A MAXIMUM OF FOUR FIXTURE TAILS SHALL BE CONNECTED TO A SINGLE JUNCTION BOX. FIXTURE TO FIXTURE WIRING OF LAY-IN LIGHTING FIXTURES IS NOT PERMITTED, EXCEPT WHERE MASTER/SLAVE FIXTURE PAIRS ARE INDICATED OR SPECIFIED.
- THERE SHALL BE NO SPLICES OF WIRING INSIDE PANELBOARDS OR DISCONNECT SWITCHES. ONLY ONE WIRE SHALL BE TERMINATED TO ANY SINGLE LUG ON A CIRCUIT BREAKER.
- ALL WIRING AND CONDUIT SIZES SHALL BE BASED ON THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE UNLESS OTHERWISE NOTED SPECIFICALLY.
- UNLESS OTHERWISE NOTED, FOR LIGHTING AND RECEPTACLE HOMERUNS HAVING A TOTAL LENGTH OF 100' TO 200', USE #10 CONDUCTORS; FOR HOMERUNS HAVING A TOTAL LENGTH OF 200' OR GREATER, USE #8 CONDUCTORS.
- COORDINATE THE REQUIREMENTS FOR OVERCURRENT PROTECTIVE DEVICE SIZE, DISCONNECT SWITCH SIZE, AND CONDUIT AND CONDUIT SIZES WITH THE REQUIREMENTS OF THE MECHANICAL EQUIPMENT THAT IS ACTUALLY TO BE INSTALLED AND PROVIDE AND INSTALL ALL ELECTRICAL COMPONENTS AS REQUIRED. THE ELECTRICAL COMPONENT SIZING SHOWN ON THESE DRAWINGS IS BASED UPON THE REQUIREMENTS FOR THE SPECIFIED MECHANICAL EQUIPMENT AVAILABLE AT THE TIME OF DESIGN. VARIATIONS IN REQUIREMENTS MAY OCCUR AS A RESULT OF THE PROVISION OF OTHER MANUFACTURER'S EQUIPMENT OR IN CHANGES TO THE SPECIFIED EQUIPMENT. SUCH REVISED REQUIREMENTS ARE A PART OF THIS CONTRACT AND SHALL BE ACCOMMODATED WITHOUT ADDITIONAL CHARGE.
- COORDINATE THE EXACT LOCATION OF ALL THERMOSTATS, STARTERS, DISCONNECTS, ETC. AND COORDINATE ALL REQUIREMENTS FOR CONTROL AND POWER WIRING WITH THE MECHANICAL CONTRACTOR OR THE TRADE PROVIDING THE EQUIPMENT.
- ALL CONDUCTORS SHALL BE THWN/THHN UNLESS OTHERWISE INDICATED. CONDUCTORS SHALL BE RATED FOR 75 DEGREES C. TERMINATIONS SHALL BE RATED FOR 75 DEGREES C. DEVIATIONS SHALL COMPLY WITH NEC ARTICLE 110-14(c) FOR EXACT EQUIPMENT BEING PROVIDED.
- COORDINATE WITH AND PAY ALL FEES ASSOCIATED WITH OBTAINING SERVICE FROM ANY OF THE FOLLOWING UTILITIES RELATED TO THIS PROJECT.
POWER COMPANY
TELEPHONE COMPANY
CABLE TELEVISION PROVIDER
- THE ELECTRICAL CONTRACTOR SHALL REVIEW ALL TECHNOLOGY DRAWINGS AND FIRE ALARM SPECS AND SHALL PROVIDE SHOP DRAWINGS FOR ENGINEER REVIEW/APPROVAL PURPOSES CLEARLY ILLUSTRATING ALL DEVICE LOCATIONS WITH INSTALLATION DETAILS OF WIRED CONDUIT AND/OR RACEWAYS AS TO BE PROVIDED AND/OR INSTALLED BY ELECTRICAL CONTRACTOR.

LIGHTING











-  LIGHTING FIXTURE - LETTER DENOTES TYPE
-  WALL WASHER LIGHTING FIXTURE - LETTER DENOTES TYPE
-  CEILING MOUNTED EXIT SIGN, ARROWS AS INDICATED - LETTER DENOTES TYPE, DARKENED AREA DENOTES LIGHTED FACE
-  WALL MOUNTED EXIT SIGN, ARROWS AS INDICATED - LETTER DENOTES TYPE, DARKENED AREA DENOTES LIGHTED FACE
-  STRIP LIGHT FIXTURE - LETTER DENOTES TYPE
-  NIGHT LIGHT FIXTURE AND OR EMERGENCY FIXTURE
-  POLE-MOUNTED SITE LIGHTING FIXTURE
-  LIGHT FIXTURE - LETTER DENOTES TYPE
-  WALL MOUNTED LIGHT FIXTURE - LETTER DENOTES TYPE
-  EMERGENCY BATTERY PACK LIGHTING FIXTURE

RECEPTACLES AND OUTLETS





-  SIMPLEX RECEPTACLE, NEMA 5-20R, 20A, 125V
-  DUPLEX RECEPTACLE, NEMA 5-20R, 20A, 125V
-  DUPLEX RECEPTACLE, GROUND FAULT INTERRUPTING
-  DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER OR BACKSPLASH
-  QUADPLEX RECEPTACLE, NEMA 5-20R, 20A, 125V
-  SPECIAL RECEPTACLE, NEMA CONFIGURATION OR EQUIPMENT PART NUMBER AS NOTED ON DRAWING
-  FLOOR RECEPTACLE - "F" DENOTES FLUSH
-  MULTI-OUTLET SURFACE RACEWAY WITH NEMA 5-20R, 20A, 125V RECEPTACLES 12" ON CENTER
-  JUNCTION BOX
-  FLOOR TELEPHONE OUTLET - "F" DENOTES FLUSH
-  FLOOR DATA OUTLET - "F" DENOTES FLUSH
-  FLOOR RECEPTACLE/TELEPHONE OUTLET - "F" DENOTES FLUSH
-  FLOOR RECEPTACLE/DATA OUTLET - "F" DENOTES FLUSH
-  EXISTING DATA OUTLET
-  DATA OUTLET - "X" INDICATES NUMBER OF DROPS REQUIRED
-  DATA/TELEPHONE OUTLET

NOTE: ALL TELEPHONE, DATA OUTLET AND COMBINATION OUTLETS TO BE PROVIDED WITH OUTLET JUNCTION BOX AND 3/4" C WITH PULL STRING TO ABOVE CEILING FOR FUTURE WIRING










MOTORS AND CONTROLS

-  MOTOR
-  DISCONNECT SWITCH - "200/3/150" DENOTES AMPS/POLE/FUSE; "NF" DENOTES NON-FUSED
-  MOTOR STARTER, NEMA SIZE AS NOTED
-  COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER - "30/3/15/1" DENOTES AMPS/POLES/FUSE/ NEMA STARTER SIZE; "NF" DENOTES NON-FUSED
-  MANUAL MOTOR STARTER WITH THERMAL OVERLOAD
-  PHOTOCCELL
-  PUSH BUTTON
-  START-STOP PUSH BUTTON CONTROL STATION
-  OPEN-STOP-CLOSE PUSH BUTTON CONTROL STATION
-  TIME CLOCK

ELECTRICAL EQUIPMENT

-  SWITCHBOARD OR DISTRIBUTION PANEL
-  PANELBOARD - FLUSH OR SURFACE MOUNT AS INDICATED ON PLAN SCHEDULE
-  DRY-TYPE TRANSFORMER
-  PLYWOOD TERMINAL BOARD, FOR TELEPHONE SYSTEM UNLESS NOTED, 4' X 8' X 3/4" UNLESS OTHERWISE NOTED

LIGHTING CONTROL

-  SWITCH, SPST, 20A, 120/277V
-  SWITCH, 20A, 120/277V - "2" DENOTES DPST, "3" DENOTES THREE-WAY, "4" DENOTES FOUR-WAY
-  SWITCH, SPST, 20A, 120/277V - "K" DENOTES KEY SWITCH, "P" DENOTES PILOT LIGHT
-  DIMMER CONTROL SWITCH, 1000 WATT UNLESS OTHERWISE NOTED
-  SWEEP SWITCH
-  TIMER SWITCH WATT-STOPPER #TS-400 UNLESS OTHERWISE NOTED
-  WALL MOUNTED LINE VOLTAGE OCCUPANCY SENSOR WITH MANUAL CONTROL
-  LOWER CASE LETTERS ADJACENT TO FIXTURE INDICATE ASSOCIATED SWITCHING. EXAMPLE SHOWS FIXTURE TYPE "B" ON SWITCH "a"
-  PUSHBUTTON

MISCELLANEOUS

-  DRAWING NOTE REFERENCE (I.E., NOTES BY SYMBOL)

SPECIFIC EQUIPMENT CONNECTIONS

— SUPPORT ELECTRICAL CONNECTION
 H1A-1,3.5 (PUMP-1)(5HP,16.7FLA)(208/3) (60/3/35)(3#10,1#10G,3/4"C)(30AMPS) PROVIDE 1/2"C TO FIRE ALARM PANEL. — CIRCUIT DESIGNATION
 — INFORMATION PROVIDED (NAME)(LOAD)(VOLTAGE)
 — CONNECTION (DISCONNECT)(WIRE)(FEEDER AMPS)
 — SPECIAL INSTRUCTIONS AND NOTES

— ALTERNATE NOTE BY SYMBOL FORMAT
 CIRCUIT(NAME)(LOAD)(VOLTAGE)(DISCONNECT)(WIRE)(AMPS)
 SPECIAL INSTRUCTIONS AND NOTES

H1A-1,3.5 (PUMP-1)(5HP,16.7FLA)(208/3)(60/3/35)(3#10,1#10G,3/4"C)(30AMPS) PROVIDE 1/2"C TO FIRE ALARM PANEL.

- DISCONNECT ABBREVIATIONS:
 30/3/NF = AMPS/POLES/FUSE "NF" INDICATES NON-FUSED
 W/UNIT = PROVIDED WITH UNIT
 L/BKR = PROVIDE LOCKABLE CIRCUIT BREAKER
 REC = RECEPTACLE
 MRS = MOTOR RATED SWITCH
 LTS = TOGGLE SWITCH WITH LOCKING CLASP

DESIGN IS BASED ON INFORMATION PROVIDED BY OTHER DIVISIONS. CONTRACTOR SHALL CONFIRM EQUIPMENT PURCHASED MEETS BASIS OF DESIGN SHOWN. COST ASSOCIATED WITH CHANGES TO PROVIDED INFORMATION SHALL BE THE RESPONSIBILITY OF THE DIVISION PROVIDING THE EQUIPMENT. CONTRACTOR SHALL COORDINATE EXACT LOCATION AND DATA PRIOR TO ROUGH.

BRANCH CIRCUIT WIRE SCHEDULE

BRANCH SIZE	COPPER WIRE SIZE	CONDUIT SIZE	BRANCH SIZE	COPPER WIRE SIZE	CONDUIT SIZE
20 AMP	2 #12, 1#12G.	1/2"	50 AMP	2 #6, 1#10G.	1"
25 AMP	2 #10, 1#10G.	1/2"	60 AMP	2 #4, 1#10G.	1"
30 AMP	2 #10, 1#10G.	1/2"	70 AMP	2 #4, 1#8G.	1"
35 AMP	2 #8, 1#10G.	3/4"	80 AMP	2 #3, 1#8G.	1-1/4"
40 AMP	2 #8, 1#10G.	3/4"	90 AMP	2 #2, 1#8G.	1-1/4"
45 AMP	2 #6, 1#10G.	1"	100 AMP	2 #1, 1#8G.	1-1/4"

- WIRE SIZES ARE BASED ON N.E.C. TABLE 310-16, 75 DEGREE C COLUMN.
- CONDUIT SHALL BE USED AS REQUIRED BY LOCAL CODE.
- PROVIDE 3 CONDUCTOR WIRE WITH GROUND WHERE REQUIRED FOR APPLIANCES. ADJUST CONDUIT SIZE AS REQUIRED BY CODE.

ABBREVIATIONS

A	AMPS	L	LENGTH
ACT	ABOVE COUNTERTOP	LB	POUNDS
AFF	ABOVE FINISHED FLOOR	LRA	LOCKED ROTOR AMPS
AFG	ABOVE FINISHED GRADE	LTG	LIGHTING
AIC	AMPERE INTERRUPTING CURRENT	MAX	MAXIMUM
ATS	AUTOMATIC TRANSFER SWITCH	MCA	MINIMUM CIRCUIT AMPACITY
AWG	AMERICAN WIRE GAUGE	MCB	MAIN CIRCUIT BREAKER
BKR	BREAKER	MH	METAL HALIDE
BLDG	BUILDING	MIN	MINIMUM
C	CONDUIT	MLO	MAIN LUGS ONLY
CKT	CIRCUIT	N/A	NOT APPLICABLE
CLG	CEILING	NEC	NATIONAL ELECTRICAL CODE
D	DEPTH	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
DEG	DEGREES	NF	NON-FUSED
DIS	DISCONNECT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
DPST	DOUBLE-POLE, DOUBLE-THROW	N/O,N/C	NORMALLY OPEN, NORMALLY CLOSED
DPST	DOUBLE-POLE, SINGLE-THROW	OC	ON CENTER
EA	EACH	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
EPO	EMERGENCY POWER OFF	PDU	POWER DISTRIBUTION UNIT
EWC	ELECTRIC WATER COOLER	PF	POWER FACTOR
FA	FIRE ALARM	PH	PHASE
FACP	FIRE ALARM CONTROL PANEL	PROVIDE	FURNISH AND INSTALL
FLA	FULL LOAD AMPS	PVC	POLYVINYL CHLORIDE
FT.	FOOT, FEET	RE	REFERENCE, REFER
FVNR	FULL-VOLTAGE, NON-REVERSING	RLA	RUNNING LOAD AMPS
G	GROUND	SPDT	SINGLE POLE DOUBLE THROW
GA.	GAUGE	SPST	SINGLE POLE SINGLE THROW
GFI	GROUND FAULT CIRCUIT INTERRUPTER	THRU	THROUGH
GFR	GROUND FAULT RELAY	TYP	TYPICAL
GND	GROUND	U/F	UNDERFLOOR
GRS	GALVANIZED RIGID STEEL	U/G	UNDERGROUND
H	HEIGHT	U/S	UNDERSLAB
HID	HIGH INTENSITY DISCHARGE	UL	UNDERWRITERS LABORATORIES, INC.
HOA	HAND-OFF-AUTOMATIC	U.O.N.	UNLESS OTHERWISE NOTED
HP	HORSEPOWER	UPS	UNINTERRUPTIBLE POWER SUPPLY
HPS	HIGH PRESSURE SODIUM	V	VOLT
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	VA	VOLT-AMPERE
HZ	HERTZ	VAC	VOLTS ALTERNATING CURRENT
IER	INTEGRATED EQUIPMENT RATING	W	WATT, WIDTH
IG	ISOLATED GROUND	W/	WITH
IN.	INCH, INCHES	W/O	WITHOUT
J-BOX	JUNCTION BOX	WP	WEATHERPROOF DEVICE, RECEPTACLES SHALL BE WEATHER-RESISTANT TYPE GFI RECEPTACLES IN WEATHERPROOF WHILE IN-USE BOX.
kmil	1000 CIRCULAR MILS	XFMR	TRANSFORMER
KV	KILOVOLT		
KVA	KILOVOLT-AMPS		
KVAR	KILOVOLT-AMPS REACTIVE		
KW	KILOWATT		
KWH	KILOWATT-HOUR		

MOUNTING HEIGHTS

- TOGGLE AND DIMMER SWITCHES:
 - 44" AFF TO CENTER OF SWITCH
- RECEPTACLES:
 - FINISHED AREAS-18" AFF TO CENTER OF RECEPTACLE
 - UNFINISHED AREAS-48" AFF TO CENTER OF RECEPTACLE
 - WATER COOLERS-DIRECTLY BEHIND COOLER - COORDINATE ELEVATION WITH THE COOLER TO BE INSTALLED PRIOR TO ROUGH-IN
 - ABOVE COUNTER - 6" ABOVE COUNTER OR BACKSPLASH TO CENTER OF RECEPTACLE
- WALL MOUNTED EMERGENCY LIGHTING FIXTURES:
 - 84" AFF TO CENTER OF FIXTURE
- THERMOSTATS:
 - 44" AFF TO CENTER

BASIS OF ELECTRICAL DESIGN

- PRIMARY ELECTRICAL CODES:
 BUILDING: 2018 INTERNATIONAL BUILDING CODE (IBC).
 ELECTRICAL: 2020 NATIONAL ELECTRICAL CODE (NEC).
 ENERGY: 2018 INTERNATIONAL ENERGY CODE (IECC).
 FIRE: 2018 INTERNATIONAL FIRE CODE (IFC).



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KOMATSU ARCHITECTURE

ISSUED FOR CONSTRUCTION

POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

ELECTRICAL SYMBOLS AND ABBREVIATIONS

REVISIONS

NO.	DATE	DESCRIPTION

SHEET SIZE: 22 x 34

SCALE:

KAI JOB NUMBER: 2017.171B

SPECIFICATIONS NO.: N/A

DATE: MARCH 11, 2022

SHEET OF SEQ #

E0.01

LIGHTING FIXTURE AND CEILING FAN SCHEDULE							
SYMBOL	TYPE OF LUMINAIRE	MANUFACTURER & CATALOG NUMBER	LAMPS	INPUT WATTAGE	INPUT VOLTAGE	MOUNTING	REMARKS
A	CUSTOM PENDANT FIXTURE	REJUVENATION: MODEL NUMBER: A3167 FINISH: UNLACQUERED BRASS SHADE: B0473	4000 LUMENS LED 3000K	25	120V	PENDANT	NOTE 2,4
B1	CAN DOWN LIGHT	LITHONIA: LDN6CYL-30/10-LO6-AR-LSS-120 -GZ10-FCM-DDB	1000 LUMENS LED 3000K	11	120V	SURFACE	
B2	CAN DOWN LIGHT	LITHONIA: LDN6CYL-30/15-LO6-AR-LSS-120 -GZ10-FCM-DDB	1500 LUMENS LED 3000K	18	120V	SURFACE	
B3	CAN DOWN LIGHT	LITHONIA: LDN6CYL-30/20-LO6-AR-LSS-120 -GZ10-FCM-DDB	2000 LUMENS LED 3000K	23	120V	SURFACE	NOTE 7
B4	CAN DOWN LIGHT	LITHONIA: LDN6CYL-30/25-LO6-AR-LSS-120 -GZ10	2500 LUMENS LED 3000K	29	120V	SURFACE	
B5	RECESSED DOWN LIGHT	LITHONIA: LDN6-30/15-LO6-AR-LSS-120 -GZ10	1500 LUMENS LED 3000K	18	120V	SURFACE	
B6	RECESSED DOWN LIGHT	LITHONIA: LDN6-30/20-LO6-AR-LSS-120 -GZ10	2000 LUMENS LED 3000K	23	120V	SURFACE	
B7	RECESSED DOWN LIGHT	LITHONIA: LDN6-30/25-LO6-AR-LSS-120 -GZ10	2500 LUMENS LED 3000K	29	120V	SURFACE	
B8	RECESSED DOWN LIGHT	LITHONIA: LDN6-30/50-LO6-AR-LSS-120 -GZ10	5000 LUMENS LED 3000K	58	120V	SURFACE	
C	CUSTOM PENDANT FIXTURE	REJUVENATION: MODEL NUMBER: A1836 FINISH: UNLACQUERED BRASS SHADE: B0462	2000 LUMENS LED 3000K	25	120V	SUSPENDED	NOTE 2
D	LINEAR FIXTURE	LITHONIA: FMILL-14IN-120V-30K-80CRI	4800 LUMENS LED 3000K	45	120V	SURFACE	
E	WALL PENDANT FIXTURE	REJUVENATION: MODEL NUMBER: A7468 FINISH: UNLACQUERED BRASS SHADE: B0462	2000 LUMENS LED 3000K	25	120V	SURFACE	NOTE 2,6
F	FAN	TEXAS CEILING FAN: 23702	N/A	90	120V	PENDANT	NOTE 5
F1	FAN	TEXAS CEILING FAN: 23838	2000 LUMENS LED, 3000K	120	120V	PENDANT	NOTE 5
S	UTILITY STRIP	LITHONIA: ZL1N-L48-3000LM-FST-120V-35K-80CRI-WH	3000 LUMENS LED, 3500K	25	120V	WALL MOUNTED	
X	EXIT/EMERGENCY COMBO FIXTURE	LITHONIA: LHZM-LED-R-HO	INCLUDED	3	120V	SURFACE	NOTE 1
OA	POLE MOUNTED FIXTURE	UNION METAL: T824-33-B1-Y1	5000 LUMENS LED, 3000K	200	120V	SURFACE	NOTE 8
OF	IN GRADE FLAG POLE LIGHT	KIM LIGHTING: LTV82-SS-SP-18L-3K-UV-SR	1800 LUMENS LED, 3000K	22	120V	IN GRADE	
SF1	LANDSCAPE MOUNTED FLOOD LIGHT	KIM LIGHTING: KFL2-24L-45-3K7-HF	1800 LUMENS LED, 3000K	45	120V	STAKE MOUNTED	
SF2	LANDSCAPE MOUNTED FLOOD LIGHT	KIM LIGHTING: KFL2-24L-70-3K7-HF	1800 LUMENS LED, 3000K	70	120V	STAKE MOUNTED	
SG1	IN GRADE UP LIGHT	KIM LIGHTING: LTV82FF-WW-18L3K	1800 LUMENS LED, 3000K	22	120V	IN GRADE	
SG2	IN GRADE UP LIGHT	KIM LIGHTING: LTV81FF-WW-36L3K	1800 LUMENS LED, 3000K	44	120V	IN GRADE	

NOTES:

- EXIT SIGNS MOUNTED ON END SHALL HAVE ONE (1) LED LAMP HEAD.
- PROVIDE CUSTOM BULB OPTION FOR FIXTURE. BULB SHALL BE LED WITH 2000 LUMEN OUTPUT AT 3000 KELVIN. E26 SOCKET 25 WATT MAXIMUM.
- FIXTURE SHALL BE USED AS A BASIS OF DESIGN. THC AND ARCHITECT SHALL GIVE FINAL APPROVAL OF FIXTURE PRIOR TO PURCHASING. COORDINATE WITH ARCHITECT FOR POLE SPECIFICATION.
- FIXTURES IN 1ST, 2ND, AND 3RD FLOOR CORRIDORS SHALL BE SUSPEND 8'-6" A.F.F. VIA CHAIN. FIXTURES IN HISTORIC COURTROOM SHALL BE SUSPENDED 12' A.F.F. VIA CHAIN. IN ALL OTHER AREAS MOUNT FIXTURE AS HIGH AS POSSIBLE. VERIFY FINAL MOUNTING HEIGHT WITH THC/ARCHITECT PRIOR TO INSTALLATION. FIELD VERIFY CHAIN LENGTHS PRIOR TO ORDERING.
- FANS SHALL BE PENDANT MOUNTED USING SHORTEST ROD POSSIBLE UNLESS NOTED OTHERWISE AND ENSURE BLADES CLEAR ALL OBJECTS BY A MINIMUM OF 12". FANS IN HISTORIC COURTROOM SHALL BE PENDANT MOUNTED 12' A.F.F. TO MATCH HEIGHT OF SCHOOLHOUSE FIXTURES. IF EQUIPPED WITH LIGHT KIT, BULB SHALL BE LED WITH 2000 LUMEN OUTPUT AT 3000 KELVIN. E26 SOCKET 25 WATT MAXIMUM. VERIFY FINAL MOUNTING HEIGHT WITH THC/ARCHITECT PRIOR TO INSTALLATION. FIELD VERIFY PENDANT LENGTHS PRIOR TO ORDERING.
- FIXTURE IN FIRE RISER ROOM SHALL BE 7' A.F.F.
- FOR FIXTURES "B2" LOCATED IN ROOMS 223 & 303 AND ANY LOCATION WHERE SHOWN IN A FURRDOWN SHALL BE RECESSED CAN TYPE WITH MODEL # LDN6-30/10-LO6-AR-LSS-120-GZ10
- PROVIDE CUSTOM BULB OPTION FOR FIXTURE. BULB SHALL BE LED WITH 5000 LUMEN OUTPUT AT 3000 KELVIN. E26 SOCKET 200 WATT MAXIMUM.

GENERAL NOTES APPLY TO ALL FIXTURES:

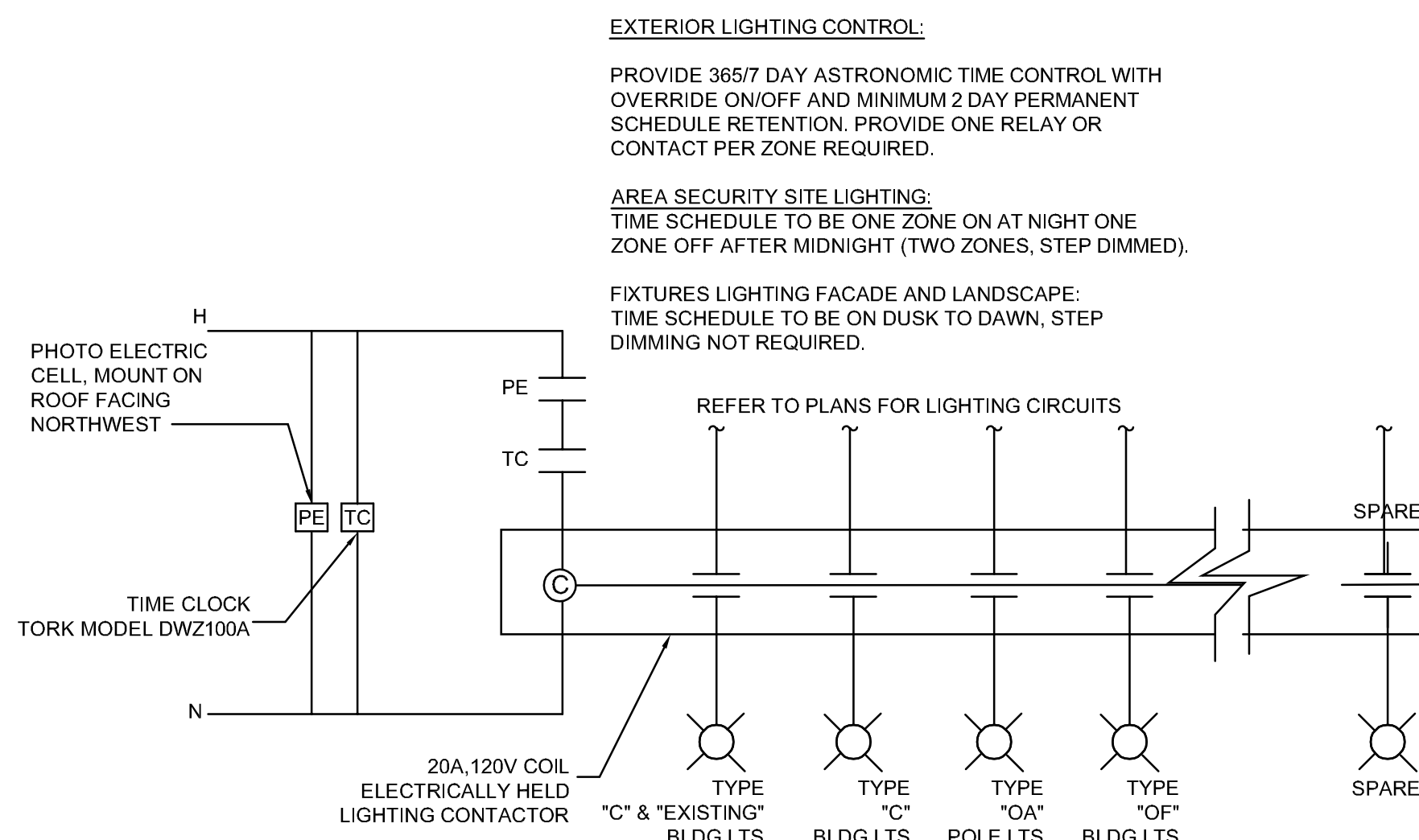
- WALL AND CEILING MOUNTED EXIT SIGN FIXTURES SHALL BE MOUNTED ABOVE DOORS. FIXTURES TO HAVE EMERGENCY OPERATION FEATURE AND SELF-TESTING/DIAGNOSTIC ELECTRONICS.
- ALL EXTERIOR LED FIXTURES TO HAVE DIMMING DRIVERS TO COMPLY WITH 2015 IECC.
- PROVIDE ALL REQUIRED MOUNTING HARDWARE AND TRIM FOR CEILING TYPE FIXTURE IS MOUNTED IN.
- FIXTURE FINISHES SHALL BE APPROVED BY ARCHITECT AND/OR OWNER'S REPRESENTATIVE.
- LIGHTING DESIGN, FIXTURE DISTANCES, AND VISUAL CALCULATIONS ARE BASED ON EXACT FIXTURE PROPERTIES IN THIS SCHEDULE. SIMILAR FIXTURES SUBMITTED ARE TO MATCH

FLOOR BOX SCHEDULE				
SYMBOL	MANUFACTURER	FLOOR BOX	COVER PLATE FLANGE	DEVICE PLATE(S)
FB1	LEGRAND	6STCP	6CT2BS	(1) 6ATC8A

GENERAL NOTES:

- CONTRACTOR SHALL VERIFY DEPTHS PRIOR TO ORDERING.
- CONTRACTOR SHALL USE ELECTRONIC SCANNING EQUIPMENT TO DETERMINE LOCATION OF STEEL REINFORCING IN CONCRETE FLOOR & POKE-THRU DEVICE SHALL BE LOCATED TO MISS STEEL.

LIGHTING CONTROL DEVICE SCHEDULE	
SYMBOL	TYPE OF CONTROL
\$	LINE VOLTAGE TOGGLE SWITCH
\$3	LINE VOLTAGE 3-WAY TOGGLE SWITCH
\$4	LINE VOLTAGE 4-WAY TOGGLE SWITCH
\$A	LINE VOLTAGE ANTIQUE STYLE PUSH-BUTTON TOGGLE SWITCH. BASIS OF DESIGN: HOUSE OF ANTIQUE HARDWARE - #R-010FD-S-1P
\$3A	LINE VOLTAGE 3-WAY ANTIQUE STYLE PUSH-BUTTON TOGGLE SWITCH. BASIS OF DESIGN: HOUSE OF ANTIQUE HARDWARE - #R-010FD-S-3



1 EXTERIOR LIGHTING CONTROLS DETAIL

NTS

NO.	DATE	DESCRIPTION	BY	APP.

REVISIONS

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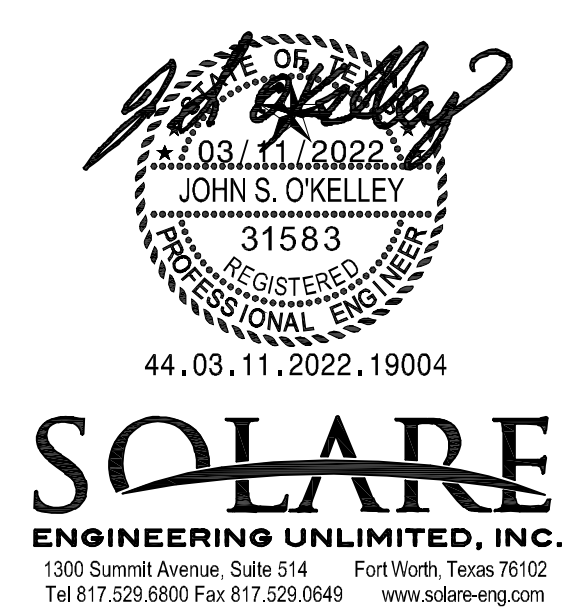
POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

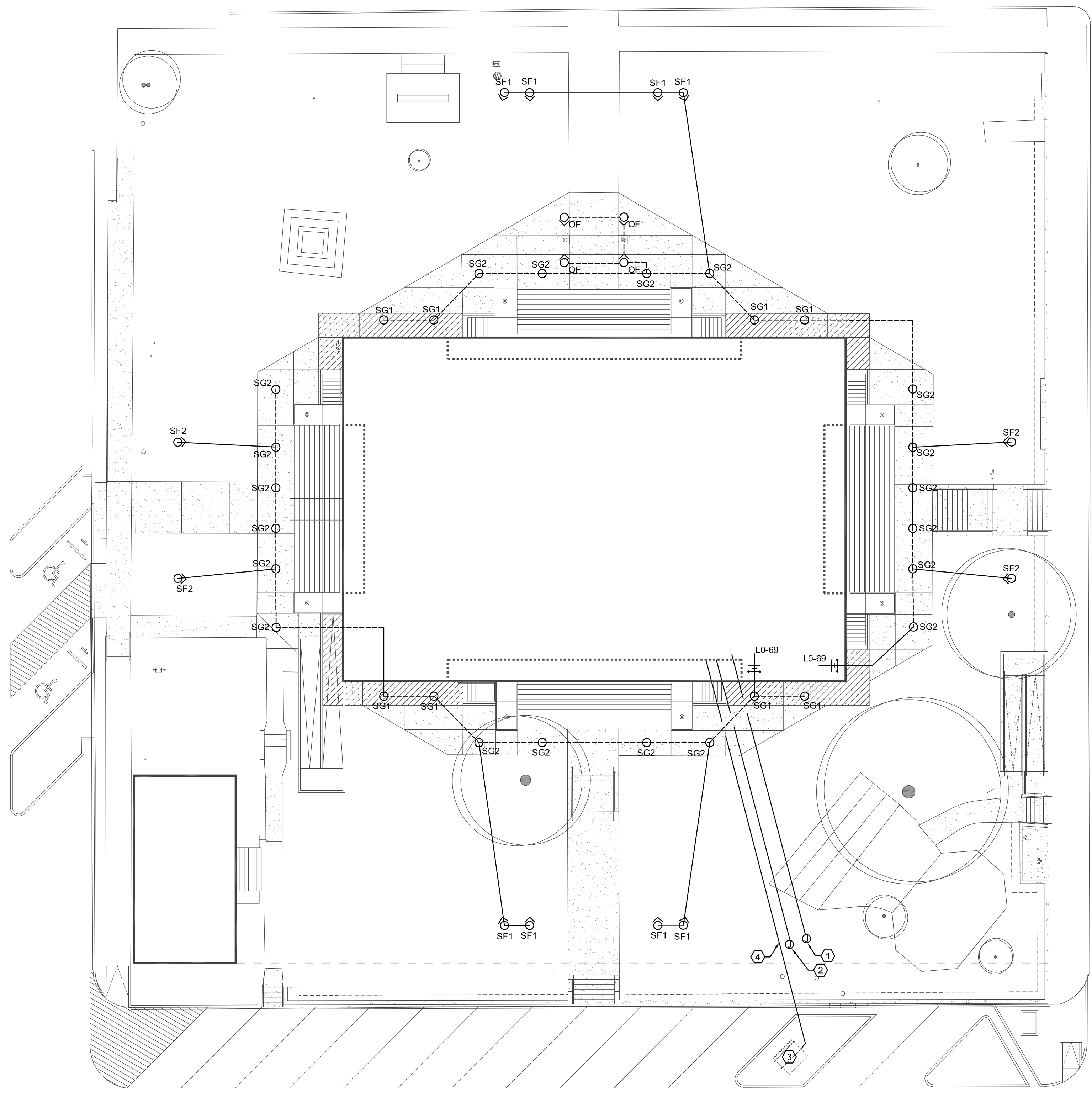
ELECTRICAL SCHEDULES

SHEET SIZE: 22 x 34
SCALE:
KAI JOB NUMBER: 2017.171B
SPECIFICATIONS NO.: N/A
DATE: MARCH 11, 2022
SHEET OF SEQ #

E0,02



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NOTES BY SYMBOL "#"

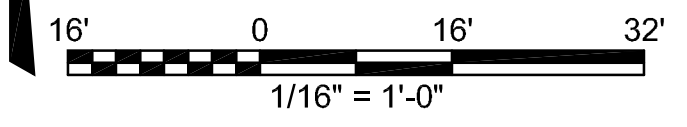
- ① EXTEND EXISTING CIRCUITS FROM REMOVED GAZEBO PANEL TO NEW PANEL "L0" LOCATED IN BASEMENT ELECTRICAL ROOM. EXTEND ALL CIRCUITS USING #12 CONDUCTORS VIA UNDERGROUND ROUTING. REFER TO PANEL SCHEDULE ON E6.02 FOR MORE INFORMATION.
- ② FOLLOWING REMOVAL OF TWO (2) ENCLOSED CIRCUIT BREAKERS, POWER EXISTING CIRCUITS THROUGH NEW PANEL "L0" USING CIRCUIT 63 & 65. EXTEND CIRCUIT USING #12 CONDUCTORS VIA UNDERGROUND ROUTING. REFER TO PANEL SCHEDULE ON E6.02 FOR MORE INFORMATION.
- ③ PROPOSED TRANSFORMER LOCATION. REFER TO CIVIL.
- ④ UNDERGROUND ROUTING OF SECONDARY TO MDP. REFER TO E6.01 FOR WIRE AND CONDUIT SIZING.

GENERAL NOTES

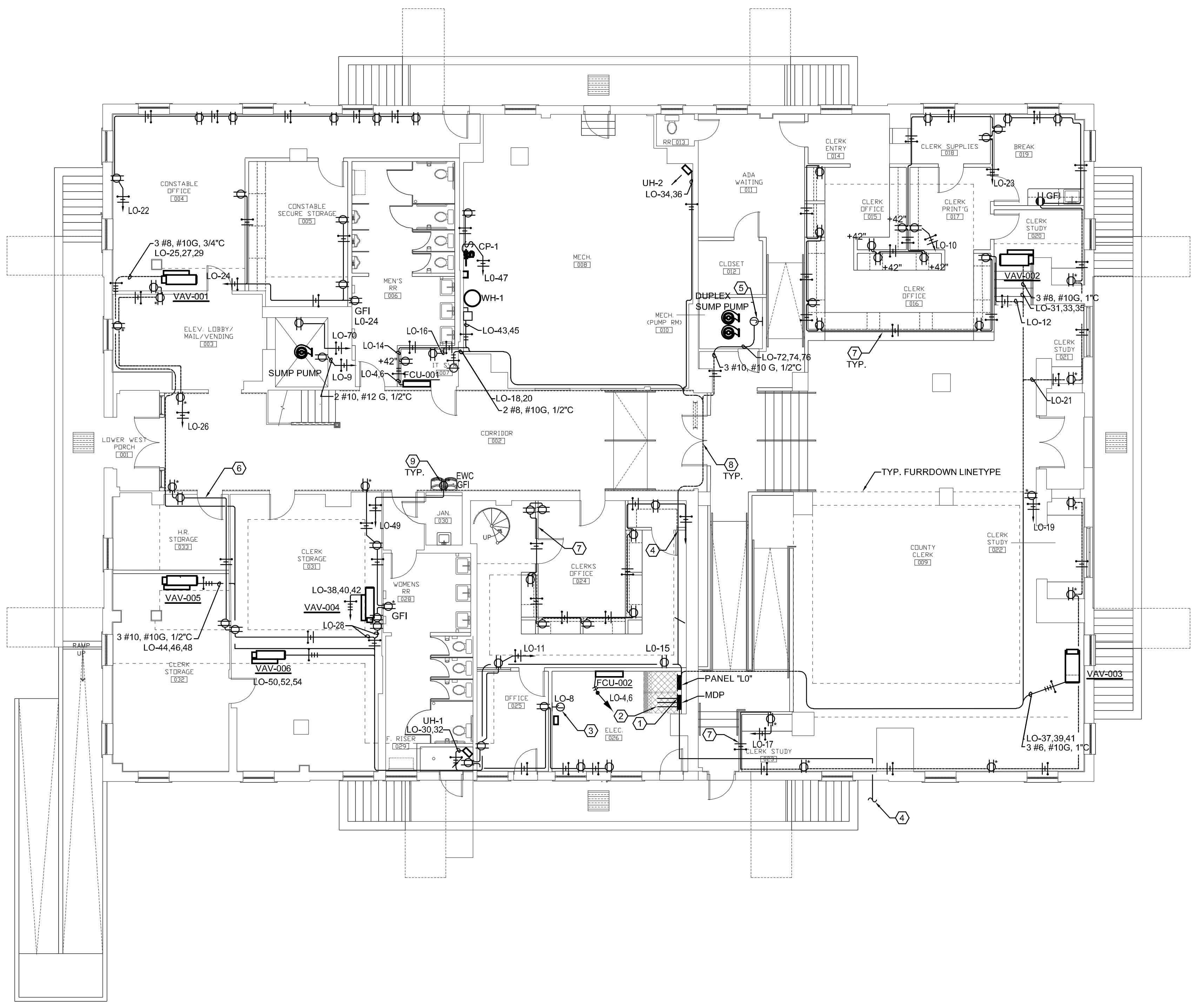
- 1. ALL EXTERIOR CIRCUITS AND DEVICES THAT ARE TO REMAIN SHALL BE POWERED THROUGH NEW ELECTRICAL EQUIPMENT LOCATED IN BASEMENT.

1 ELECTRICAL SITE PLAN
1/16" = 1' - 0"

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POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION 101 W. Church Street Livingston, TX 77351 ELECTRICAL SITE PLAN	
SHEET SIZE: 22 x 34 SCALE: KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #	APPROVED: _____ DATE: _____ DESCRIPTION: _____ SW: _____ REVISIONS: _____
E100	



- ### NOTES BY SYMBOL "#"
- LOCATION OF MAIN DISTRIBUTION PANEL RATED AT 1000 AMPS 120/208V, 3-PHASE, 4WIRE.
 - CONDUIT RISE UP AND RUNS LATERAL WEST AT UNDERSIDE OF FIRST FLOOR PLATE. PENETRATE FLOOR AND ROUTE TO PANEL ABOVE ON 1ST FLOOR.
 - PROPOSED LOCATION OF HVAC CONTROL PANEL.
 - MULTIPLE CIRCUITS ENTER BUILDING AT THIS AREA. REFER TO ELECTRICAL SITE PLAN AND CIVIL SITE PLAN FOR MORE INFORMATION.
 - VERIFY EXACT ELECTRICAL REQUIREMENTS FOR DUPLEX SUMP PUMP SYSTEM PRIOR TO INSTALLATION.
 - RISE AND RUN WIREMOLD ABOVE DOOR AND DOWN TO RUN ON WALL.
 - CONDUIT ROUTED IN FRAMED WALL CAVITY WHERE FRAMED WALL PROVIDED. TYPICAL FOR ALL LOCATIONS WHERE CONDUIT ROUTING IS SHOWN IN OR ADJACENT TO NEW FRAMED WALLS.
 - DASHED LINework REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. TYPICAL.
 - RECEPTACLES ANNOTATED WITH AN ASTERICK (*) TO HAVE SHALLOW OUTLET BOX AND/OR DEVICE WITH ASSOCIATED CONDUIT SPECIFIED TO BE RECESSED IN SHALLOW TRENCH AND INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED AT EXISTING MASONRY WALL TO BE FULL CONCEALED FROM VIEW. TYPICAL.
 - DUPLEX RECEPTACLE WITH GFI PROTECTION LOCATED IN ELEVATOR PIT.

- ### GENERAL NOTES
- UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RAN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
 - CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE.
 - WHERE RECEPTACLE DEVICE IS ANNOTATED WITH ASTERICK (*) CONTRACTOR SHALL RECESS BOTH OUTLET BOX AND CONDUIT BY SHALLOW TRENCHING OF EXISTING MASONRY WALL. WALL TRENCH AND RECESSED ELECTRICAL DEVICE TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED TO FULLY CONCEAL FROM VIEW. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. COORDINATE FINISH COLOR OF EXPOSED WALL PLATE WITH ARCHITECT.
 - WHEN ROUTING CONDUIT ACROSS CORRIDOR CONDUIT IS TO BE RECESSED WITHIN PLASTER FINISH AT UNDERSIDE OF DECK OVERHEAD. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
 - WALL OUTLETS/DEVICES LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL, AND/OR ELECTRICAL ROOMS) ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUITS.
 - FOR DEVICES SHOWN ON 2" THICK WALLS, UNLESS ANNOTATED WITH (*), PROVIDE SURFACE MOUNTED OUTLET BOXES AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. FOR OUTLETS/DEVICES WITH (*) SEE NOTE 3. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
 - CONTRACTOR SHALL REMOVE ALL EXISTING SURFACE MOUNTED CONDUITS AND WIREMOLD AND ASSOCIATED RECEPTACLES AND SWITCHES PRIOR TO BEGINNING NEW CONSTRUCTION.
 - FURDOWNS SHALL BE UTILIZED AS MUSH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURDOWN TO OPEN SPACE, RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC.).
 - LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD. PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E., PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING TO BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.

1 BASEMENT ELECTRICAL POWER PLAN
1/8" = 1' - 0"

NO.	DATE	DESCRIPTION	BY	APP.

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POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

BASEMENT ELECTRICAL POWER PLAN

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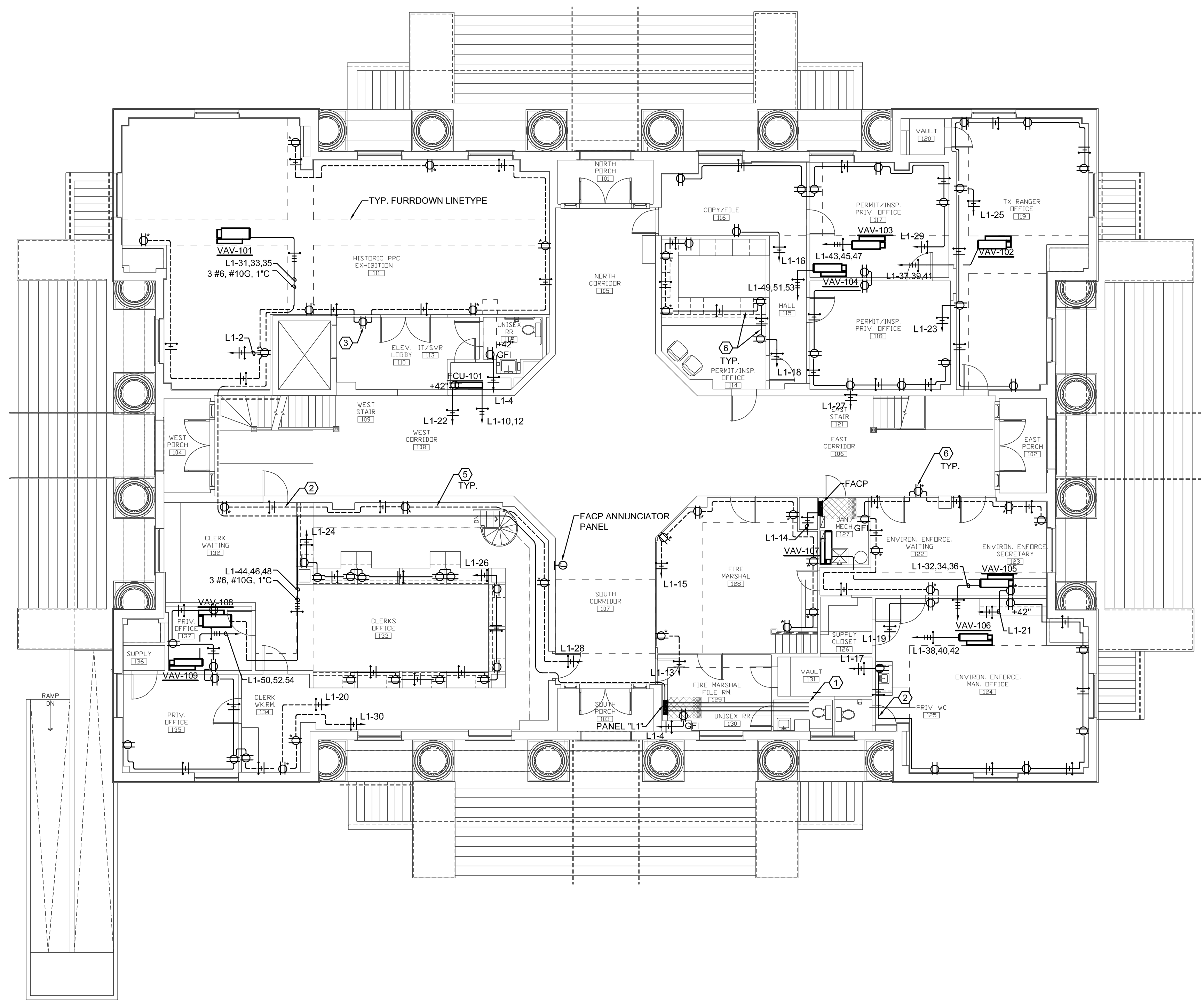
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1/8" = 1'-0"

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET	OF SEQ #

E2.00



NOTES BY SYMBOL "E"

- ① RISE UP AND ROUTE CONDUIT AT UNDERSIDE OF 2ND FLOOR PLATE. PENETRATE FLOOR AND ROUTE TO PANEL ABOVE ON 2ND FLOOR.
- ② RISE AND RUN WIREMOLD ABOVE DOOR AND DOWN TO RUN ON WALL.
- ③ EXISTING RECEPTACLE LOCATION TO REMAIN. PROVIDE NEW DEVICE IN EXISTING LOCATION AND POWER USING CIRCUIT ON PLAN.
- ④ CONDUIT ROUTED IN FRAMED WALL CAVITY WHERE FRAMED WALL PROVIDED. TYPICAL FOR ALL LOCATIONS WHERE CONDUIT ROUTING IS SHOWN IN OR ADJACENT TO NEW FRAMED WALLS.
- ⑤ DASHED LINework REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. TYPICAL.
- ⑥ RECEPTACLES ANNOTATED WITH AN ASTERICK (*) TO HAVE SHALLOW OUTLET BOX AND/OR DEVICE WITH ASSOCIATED CONDUIT SPECIFIED TO BE RECESSED IN SHALLOW TRENCH AND INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED AT EXISTING MASONRY WALL TO BE FULL CONCEALED FROM VIEW. TYPICAL.

GENERAL NOTES

1. UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RAN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
2. CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE.
3. WHERE RECEPTACLE DEVICE IS ANNOTATED WITH ASTERICK (*) CONTRACTOR SHALL RECESS BOTH OUTLET BOX AND CONDUIT BY SHALLOW TRENCHING OF EXISTING MASONRY WALL. WALL TRENCH AND RECESSED ELECTRICAL DEVICE TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED TO FULLY CONCEAL FROM VIEW. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. COORDINATE FINISH COLOR OF EXPOSED WALL PLATE WITH ARCHITECT.
4. WHEN ROUTING CONDUIT ACROSS CORRIDOR CONDUIT IS TO BE RECESSED WITHIN PLASTER FINISH AT UNDERSIDE OF DECK OVERHEAD. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
5. WALL OUTLETS/DEVICES LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL, AND/OR ELECTRICAL ROOMS) ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUITS.
6. FOR DEVICES SHOWN ON 2" THICK WALLS, UNLESS ANNOTATED WITH (*), PROVIDE SURFACE OUTLET BOXES AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. FOR OUTLETS/DEVICES WITH (*) SEE NOTE 3. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
7. CONTRACTOR SHALL REMOVE ALL EXISTING SURFACE MOUNTED CONDUITS AND WIREMOLD AND ASSOCIATED RECEPTACLES AND SWITCHES PRIOR TO BEGINNING NEW CONSTRUCTION.
8. FURDOWNS SHALL BE UTILIZED AS MUCH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURDOWN TO OPEN SPACE, RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC).
9. LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD. PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E., PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING TO BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.

1 1ST FLOOR ELECTRICAL POWER PLAN
1/8" = 1' - 0"

NO.	DATE	APPROVED

KOMATSU
ARCHITECTURE

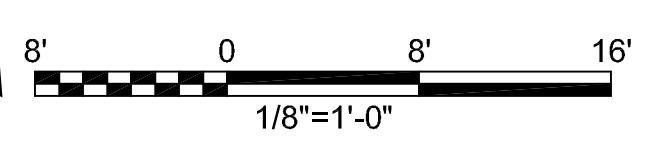
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POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION
101 W. Church Street
Livingston, TX 77351
1ST FLOOR ELECTRICAL POWER PLAN

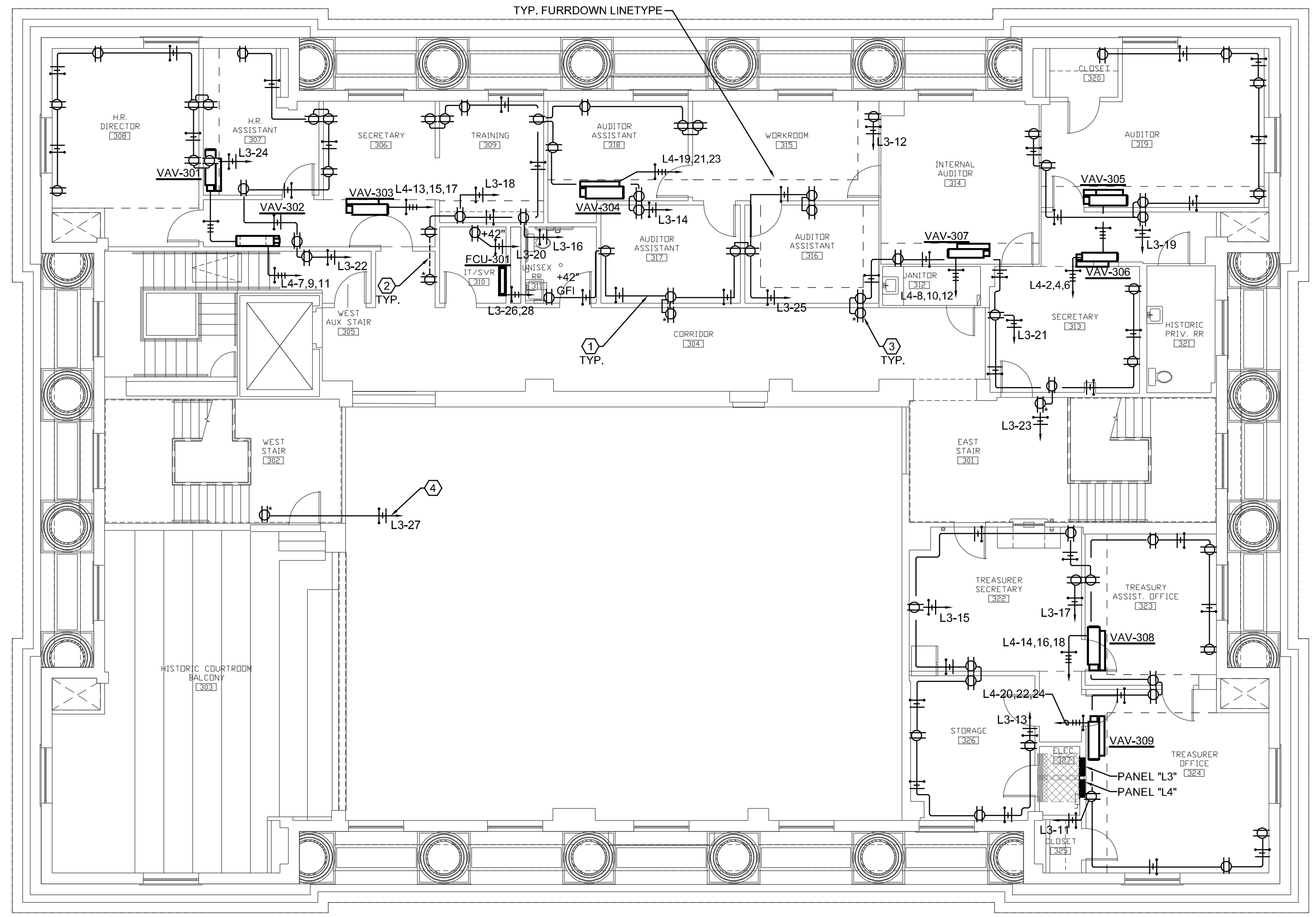


44.03.11.2022.19004



SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	

E2.01



- ### NOTES BY SYMBOL "#"
- CONDUIT ROUTED IN FRAMED WALL CAVITY WHERE FRAMED WALL PROVIDED. TYPICAL FOR ALL LOCATIONS WHERE CONDUIT ROUTING IS SHOWN IN OR ADJACENT TO NEW FRAMED WALLS.
 - DASHED LINWORK REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01, TYPICAL.
 - RECEPTACLES ANNOTATED WITH AN ASTERICK (*) TO HAVE SHALLOW OUTLET BOX AND/OR DEVICE WITH ASSOCIATED CONDUIT SPECIFIED TO BE RECESSED IN SHALLOW TRENCH AND INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED AT EXISTING MASONRY WALL TO BE FULLY CONCEALED FROM VIEW. TYPICAL.
 - CONDUIT ROUTED ABOVE DROP CEILING IN COURTROOM. SURFACE MOUNT AAT UNDERSIDE OF FACE OF BEAM.

- ### GENERAL NOTES
- UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RAN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
 - CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE.
 - WHERE RECEPTACLE DEVICE IS ANNOTATED WITH ASTERICK (*) CONTRACTOR SHALL RECESS BOTH OUTLET BOX AND CONDUIT BY SHALLOW TRENCHING OF EXISTING MASONRY WALL. WALL TRENCH AND RECESSED ELECTRICAL DEVICE TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER AND FINISHED TO FULLY CONCEAL FROM VIEW. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. COORDINATE FINISH COLOR OF EXPOSED WALL PLATE WITH ARCHITECT.
 - WHEN ROUTING CONDUIT ACROSS CORRIDOR CONDUIT IS TO BE RECESSED WITHIN PLASTER FINISH AT UNDERSIDE OF DECK OVERHEAD. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE INFILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
 - WALL OUTLETS/DEVICES LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL, AND/OR ELECTRICAL ROOMS) ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUITS.
 - FOR DEVICES SHOWN ON 2" THICK WALLS, UNLESS ANNOTATED WITH (*), PROVIDE SURFACE MOUNTED WIREMOLD AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. FOR OUTLETS/DEVICES WITH (*) SEE NOTE 3. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
 - CONTRACTOR SHALL REMOVE ALL EXISTING SURFACE MOUNTED CONDUITS AND WIREMOLD AND ASSOCIATED RECEPTACLES AND SWITCHES PRIOR TO BEGINNING NEW CONSTRUCTION.
 - FURDOWNS SHALL BE UTILIZED AS MUCH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURDOWN TO OPEN SPACE, RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC.).
 - LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD. PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E., PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING TO BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.

1 3RD FLOOR ELECTRICAL POWER PLAN
1/8" = 1' - 0"

NO.	DATE	APPROVED	DESCRIPTION

KOMATSU
ARCHITECTURE



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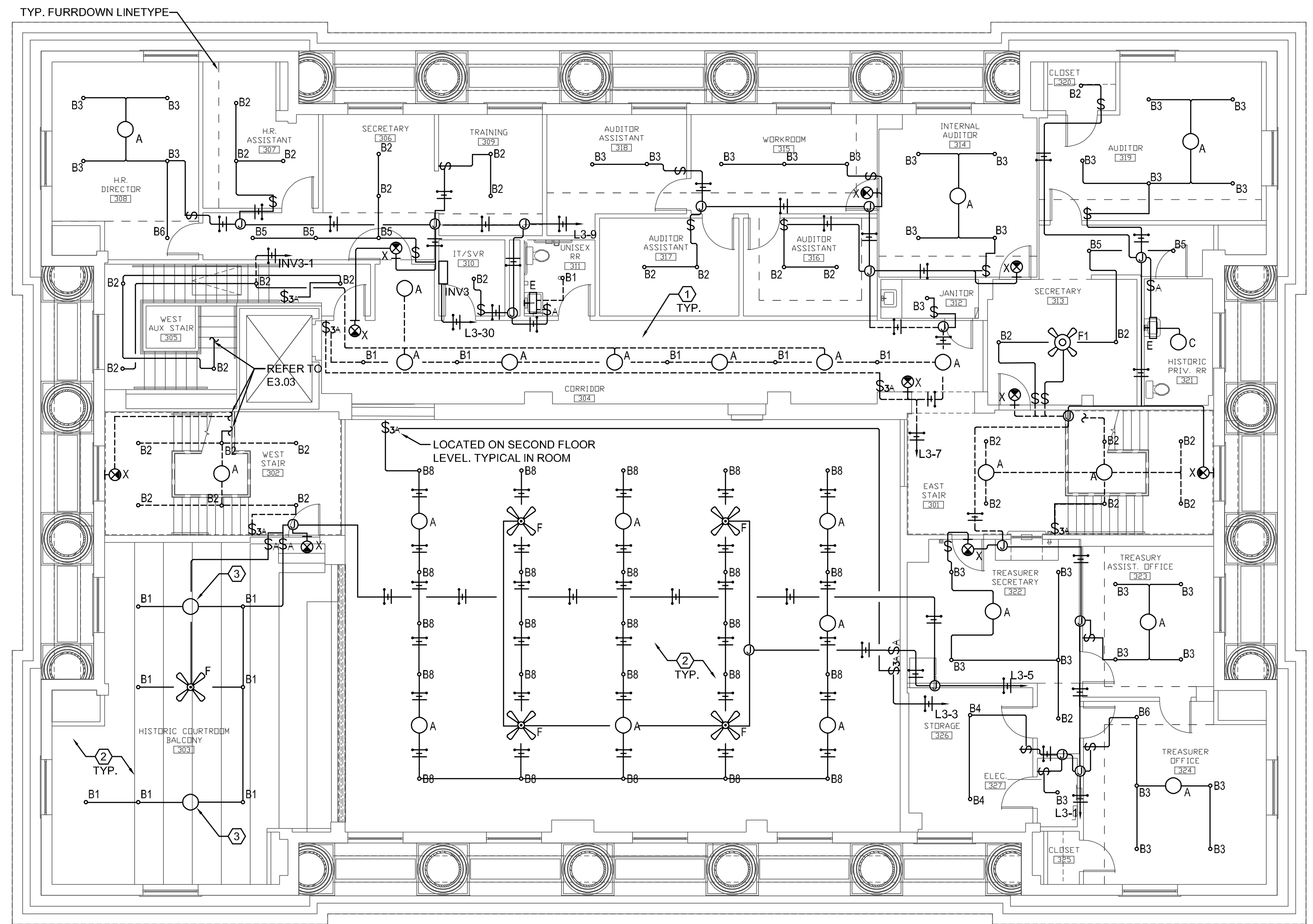
POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION
101 W. Church Street
Livingston, TX 77351
3RD FLOOR ELECTRICAL POWER PLAN

44.03.11.2022.19004

SOLARE
ENGINEERING UNLIMITED, INC.
1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102
Tel 817.526.6900 Fax 817.526.6643 www.solare-eng.com

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.1716
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	

E2.03



1 3RD FLOOR ELECTRICAL LIGHTING PLAN
1/8" = 1' - 0"

NOTES BY SYMBOL "E"

- ① DASHED LINework REPRESENTS CONDUIT IN PUBLICLY VIEWABLE SPACES THAT SHALL BE FULLY RECESSED AND CONCEALED IN PLASTER TRENCH. REFER TO DETAIL 4C ON TECHNOLOGY SHEET T6.01. TYPICAL.
- ② ALL CONDUIT IN AREA TO BE INSTALLED ABOVE DROP CEILING AND SURFACE MOUNTED AT UNDERSIDE OF FACE OF BEAM.
- ③ RECONDITION EXISTING CEILING MOUNTED FIXTURE AND CIRCUIT AS INDICATED ON PLAN. PROVIDE 60 WATT EQUIVALENT LED BULB WITH A COLOR TEMPERATURE OF 3000K AND A MINIMUM LUMEN OUTPUT OF 2000 LUMENS. ACTUAL WATTAGE OF LED BULB SHALL NOT EXCEED 30 WATTS.

GENERAL NOTES

1. UNLESS INDICATED OTHERWISE ALL CIRCUITS SHOWN SHALL BE RUN IN 1/2" CONDUIT FOR ROUTING PURPOSES.
2. CONDUIT SHALL BE ROUTED THROUGH NEW WALL CONSTRUCTION WHERE POSSIBLE. OTHERWISE ALL 1/2" CONDUIT SHALL BE ROUTED FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK OR WITHIN FRAMING CAVITY OF DROP DOWN CEILING FURRING. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
3. WHEN ROUTING CONDUIT ACROSS CORRIDOR, CONDUIT IS TO BE FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK. CONTRACTOR TO TRENCH PLASTER AS MINIMALLY AS REQUIRED TO RECESS CONDUIT. TRENCH TO BE FILLED FLUSH/SEAMLESS WITH MATCHING PLASTER FINISH.
4. IF CONDUIT RUN IS TO ROUTE THROUGH ENTIRE LENGTH OF CORRIDOR, CONDUIT IS TO BE FULLY RECESSED WITHIN A PLASTERED TRENCH AT PLASTERED DECK. WHERE STRUCTURE IS ENCOUNTERED, THE CONTRACTOR SHALL CORE DRILL (PER STRUCTURAL INFO) IN ORDER TO PROVIDE A CONTINUOUS RUN.
5. CONTRACTOR SHALL MAKE EVERY EFFORT TO CONCEAL CONDUIT WITHIN EXISTING PLASTER. CONDUIT RUNS LOCATED IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) ARE TO BE INSTALLED AS INCONSPICUOUS AS POSSIBLE. PROVIDE COLOR MATCHING SURFACE MOUNTED WIREMOLD FOR CONDUIT RUNS.
6. POWER ALL EXIT SIGNS USING AN UNSWITCHED LEG OF THE NEAREST LIGHTING CIRCUIT IN AREA.
7. FURRDOWNS SHALL BE UTILIZED AS MUCH AS POSSIBLE FOR CONDUIT ROUTING. WHEN TRANSITIONING FROM FURRDOWN TO OPEN SPACE, CONTRACTOR SHALL RECESS CONDUIT IN PLASTERED TRENCH AT SPACES WHERE PUBLICLY VISIBLE (I.E. CORRIDORS, PUBLIC ACCESSIBLE OFFICES, COURTROOMS, PUBLIC RESTROOMS, ETC.). USE OF SURFACE MOUNTED PAINTED WIRE MOLD IS ONLY PERMISSIBLE IN NON-PUBLIC VISIBLE SPACES (I.E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, MECHANICAL, STORAGE ROOMS, ETC.)
8. ALL LOW VOLTAGE CONTROL CABLING SHALL BE RUN IN CONDUIT/WIREMOLD. PERMISSIBLE ONLY IN NON-PUBLIC SPACES (I.E. PRIVATE OFFICES, BREAKROOMS, STORAGE, MECHANICAL AND/OR ELECTRICAL ROOMS) OTHERWISE CABLING SHALL BE RECESSED/CONCEALED AS DESCRIBED IN NOTE 3.
9. FOR LIGHT SWITCHES AND DEVICES SHOWN ON 2" THICK WALLS, WHERE LOCATED IN NON-PUBLIC ACCESSIBLE OR VISIBLE SPACES, PROVIDE SURFACE OUTLET BOXES AND ROUTE CONDUCTORS IN SURFACE MOUNTED WIREMOLD. COLOR TO MATCH WALL IN AREA. REFER TO ARCHITECTURAL SET FOR MORE INFORMATION.
10. UNLESS NOTED OTHERWISE, FIXTURES POWERED THROUGH INVERTER SHALL BE ALWAYS ON AND SERVE AS NIGHT LIGHTS.

NO.	DATE	APPROVED	DESCRIPTION

KOMATSU
ARCHITECTURE

ISSUED FOR CONSTRUCTION

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POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

3RD FLOOR ELECTRICAL LIGHTING PLAN

John S. O'Kelley
03/11/2022
JOHN S. O'KELLEY
31583
REGISTERED PROFESSIONAL ENGINEER
44.03.11.2022.19004

SOLARE
ENGINEERING UNLIMITED, INC.
1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102
Tel 817.529.6900 Fax 817.529.6943 www.solare-eng.com

8' 0 8' 16'
1/8"=1'-0"

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	

E3.03

EQUIPMENT SCHEDULE BY SYMBOL (BUILDING A)					
NAME	MCA / MOCBP	ELECTRIC HEAT	VOLTAGE/ PH	(DISCONNECT) / (WIRE)	PANEL DESIGNATION
RTU-1	99 / 125	GAS	208 / 3	(INTEGRAL)(3 #1, #6 G, 1-1/2"C)	
RTU-2	93 / 110	GAS	208 / 3	(INTEGRAL)(3 #2, #8 G, 1-1/4"C)	
RTU-3	99 / 125	GAS	208 / 3	(INTEGRAL)(3 #1, #6 G, 1-1/2"C)	
RTU-4	85 / 100	GAS	208 / 3	(INTEGRAL)(3 #2, #8 G, 1-1/4"C)	
RTU-5	41 / 60	GAS	208 / 3	(INTEGRAL)(3 #6, #10 G, 1"C)	
RTU-6	69 / 80	GAS	208 / 3	(INTEGRAL)(3 #4, #8 G, 1-1/4"C)	
CU-1	25 / 40	N/A	208 / 1	(60/2)NF(2 #12, #12 G, 1/2"C)	
FCU-001	25 / 15	N/A	208 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	
FCU-002	25 / 15	N/A	208 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	
FCU-101	25 / 15	N/A	208 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	
FCU-201	25 / 15	N/A	208 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	
FCU-301	25 / 15	N/A	208 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	
UH-1	14.5 / 20	3 KW	208 / 1	(30/2)NF(2 #12, #12 G, 1/2"C)	
UH-2	14.5 / 20	3 KW	208 / 1	(30/2)NF(2 #10, #12 G, 1/2"C)	
VAV-001	19.4 / 30	7 KW	208 / 3	(INTEGRAL)(3 #8, #10 G, 1"C)	
VAV-002	19.4 / 30	7 KW	208 / 3	(INTEGRAL)(3 #8, #10 G, 1"C)	
VAV-003	41.6 / 60	15 KW	208 / 3	(INTEGRAL)(3 #6, #10 G, 1"C)	
VAV-004	8.3 / 15	3 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-005	18 / 30	6.5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-006	13.9 / 20	5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-101	27.8 / 40	10 KW	208 / 3	(INTEGRAL)(3 #6, #10 G, 1"C)	
VAV-102	13.9 / 20	5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-103	8.3 / 15	3 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-104	9.7 / 15	3.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-105	6.9 / 15	2.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-106	11.1 / 20	4 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-107	8.3 / 15	3 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-108	33.3 / 50	12 KW	208 / 3	(INTEGRAL)(3 #6, #10 G, 1"C)	
VAV-109	6.9 / 15	2.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-201	12.5 / 20	4.5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-202	8.3 / 15	3 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-203	13.9 / 20	5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-204	6.9 / 15	2.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-205	5.6 / 15	2 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-206	9.7 / 15	3.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-207	6.9 / 15	2.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-208	5.6 / 15	2 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-209	11.1 / 20	4 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-210	11.1 / 20	4 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-211	12.5 / 20	4.5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-301	8.3 / 15	3 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-302	4.2 / 15	1.5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-303	9.7 / 15	3.5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-304	12.5 / 20	4.5 KW	208 / 3	(INTEGRAL)(3 #10, #12 G, 1/2"C)	
VAV-305	8.3 / 15	3 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-306	4.3 / 15	1.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-307	6.8 / 15	2.5 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-308	11.1 / 20	4 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
VAV-309	11.1 / 20	4 KW	208 / 3	(INTEGRAL)(3 #12, #12 G, 1/2"C)	
EF-1	1/4 HP	N/A	120 / 1	(INTEGRAL)(2 #10, #12 G, 1/2"C)	
EF-2,3	1/6 HP	N/A	120 / 1	(INTEGRAL)(2 #10, #12 G, 1/2"C)	
WH-1	19 / 30	4 KW	208 / 1	(SWITCH)(2 #10, #12 G, 1/2"C)	
CP-1	1/25 HP	N/A	120 / 1	(SWITCH)(2 #12, #12 G, 1/2"C)	

GENERAL NOTES APPLY TO ALL:
 1. VERIFY ALL MOUNTING REQUIREMENTS WITH EQUIPMENT PROVIDER.
 2. VERIFY ACTUAL EQUIPMENT LOADS AND CONNECTION REQUIREMENTS WITH EQUIPMENT BEING PROVIDED.

EQUIPMENT NOTES:
 1. CONFIRM EXACT ELECTRICAL REQUIREMENTS WITH MANUFACTURER. PROVIDE NEW NEMA 3R DISC IF DISCONNECTING MEANS IS NOT INTEGRAL TO MANUFACTURER CONTROL PANEL. CONFIRM MOCBP OR BRKR SIZE IN CONTROL PANEL PRIOR TO INSTALLATION.

FAULT CURRENT BRACING IS BASED ON A UTILITY COMPANY TRANSFORMER SIZE OF 225KVA MAXIMUM WITH A MINIMUM IMPEDANCE OF 2% AT A MINIMUM DISTANCE OF 60' FROM THE SERVICE TO THE TRANSFORMER. CONTRACTOR SHALL VERIFY THIS DATA WITH THE UTILITY COMPANY PRIOR TO START OF WORK. IF ANY OF THE MINIMUMS OR MAXIMUM WILL BE EXCEEDED CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO PURCHASE OF EQUIPMENT AND START OF CONSTRUCTION SO THAT DESIGN REVISIONS CAN BE MADE.

FAULT CURRENT CALCULATION:

TRANSFORMER = 225 KVA, Z = 2%

$$I_{sc} = \frac{KVA \times 1000}{V \times Z \times 1.732}$$

$$I_{sc} = \frac{225 \times 1000}{208 \times .02 \times 1.732} = \frac{225000}{7.21} = 31200 + 10\% \text{ TOLERANCE}$$

MAXIMUM AVAILABLE 3Ø FAULT = 22.7 KA

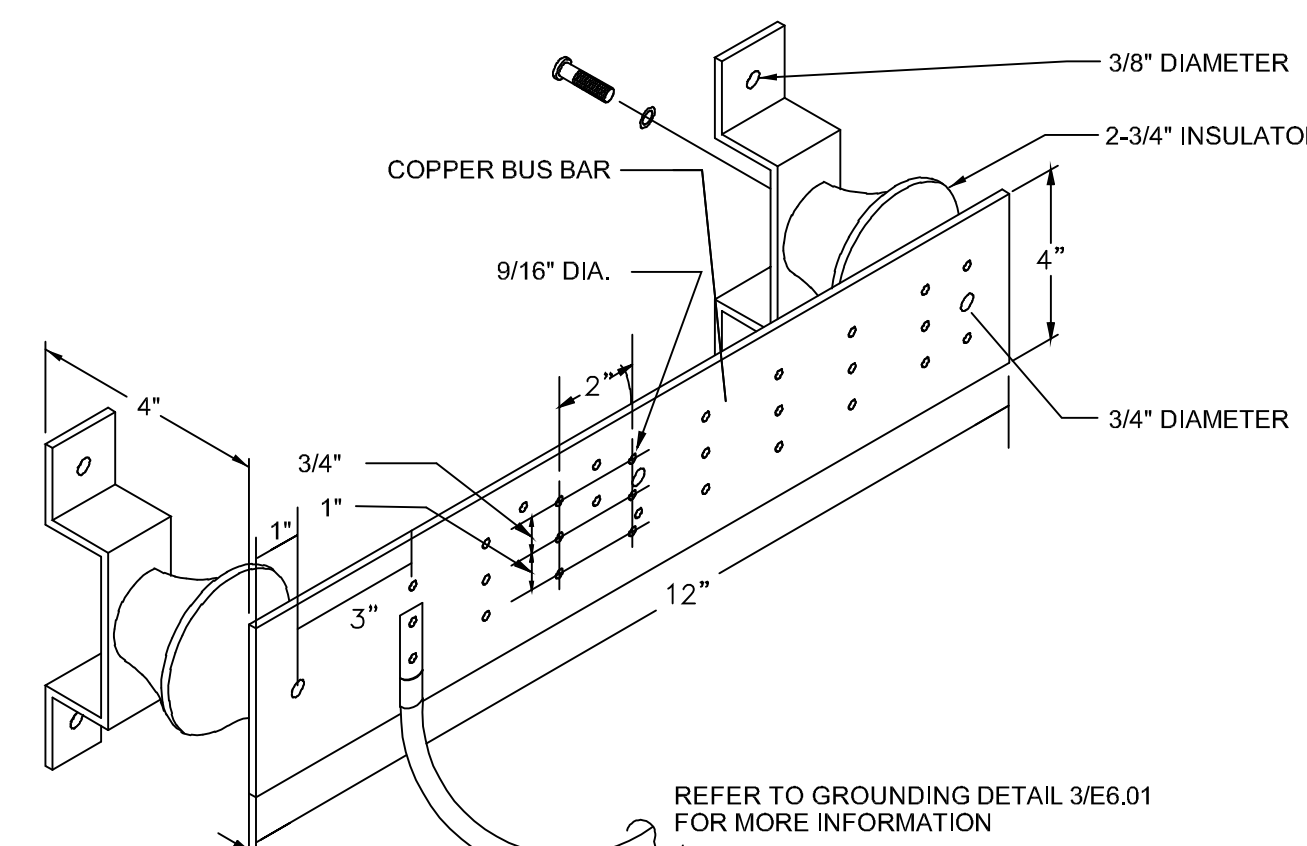
- ### NOTES BY SYMBOL "#"
- REFER TO CIVIL FOR LOCATION.
 - RE: 2/E6.01 BUILDING SERVICE, ENTRANCE GROUNDING DETAIL FOR ADDITIONAL INFORMATION.
 - PROVIDE SERVICE RATED CIRCUIT BREAKER RATED AT 1000 AMPS FOR MAIN DISTRIBUTION PANEL.
 - PROVIDE 500VA LIGHTING INVERTER. INVERTER SHALL BE EMERGI-LITE: 120SG500-FTCM-120-90-ICB-OCB120 OR APPROVED EQUAL. PROVIDE WALL MOUNT BRACKET AND MOUNT 12" FROM CEILING FINISH.
 - PROVIDE 1000VA LIGHTING INVERTER. INVERTER SHALL BE EMERGI-LITE: 120SG1000-FTCM-120-90-ICB-OCB120 OR APPROVED EQUAL. PROVIDE WALL MOUNT BRACKET AND MOUNT 12" FROM CEILING FINISH.

GENERAL NOTES

1. COORDINATE ELECTRICAL SERVICE WITH LIVINGSTON UTILITIES.
 CITY OF LIVINGSTON PROJECT ENGINEER:
 DEWAYNE OATS
 PHONE: 936-327-4311

PANEL FEEDER AND METER CENTER WIRE SCHEDULE

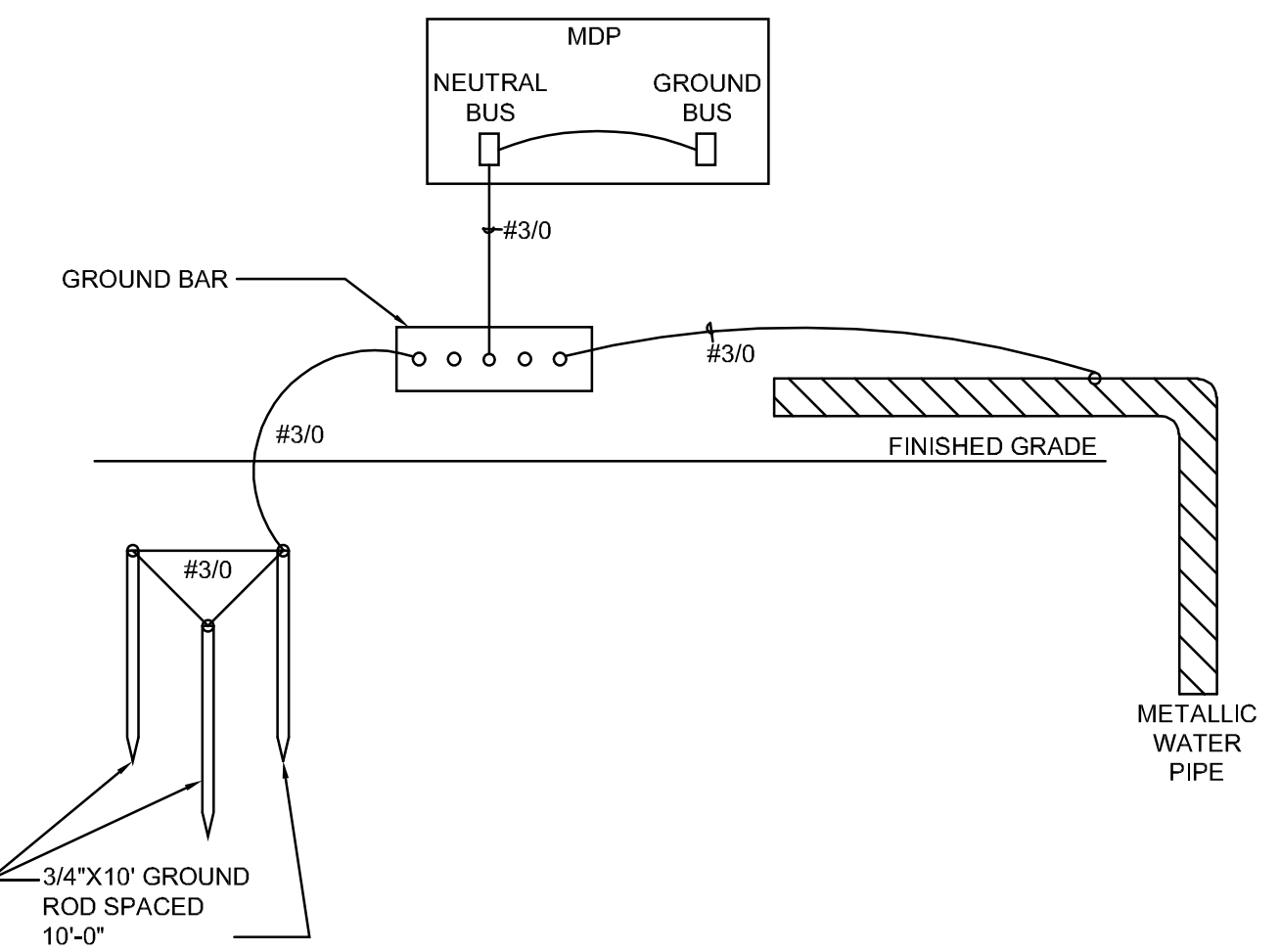
NO.	SERVICE SIZE	WIRE SIZE	CONDUIT SIZE (EACH)
1	1000 AMPS	(3 SETS) 4# 400KCMIL, #3/0 G	3-1/2"
2	600 AMPS	(2 SETS) 4 #350KCMIL, #1 G	3-1/2"
3	400 AMPS	4 #600KCMIL, #1 G	4"
4	300 AMPS	4 #350KCMIL, #4 G	3-1/2"
5	100 AMPS	4 #3, #8 G	1-1/2"



DETAIL NOTES:
 ERICO TMGBA12H15P
 MOUNT THE GROUND BAR @ 7" 6" A.F.F.

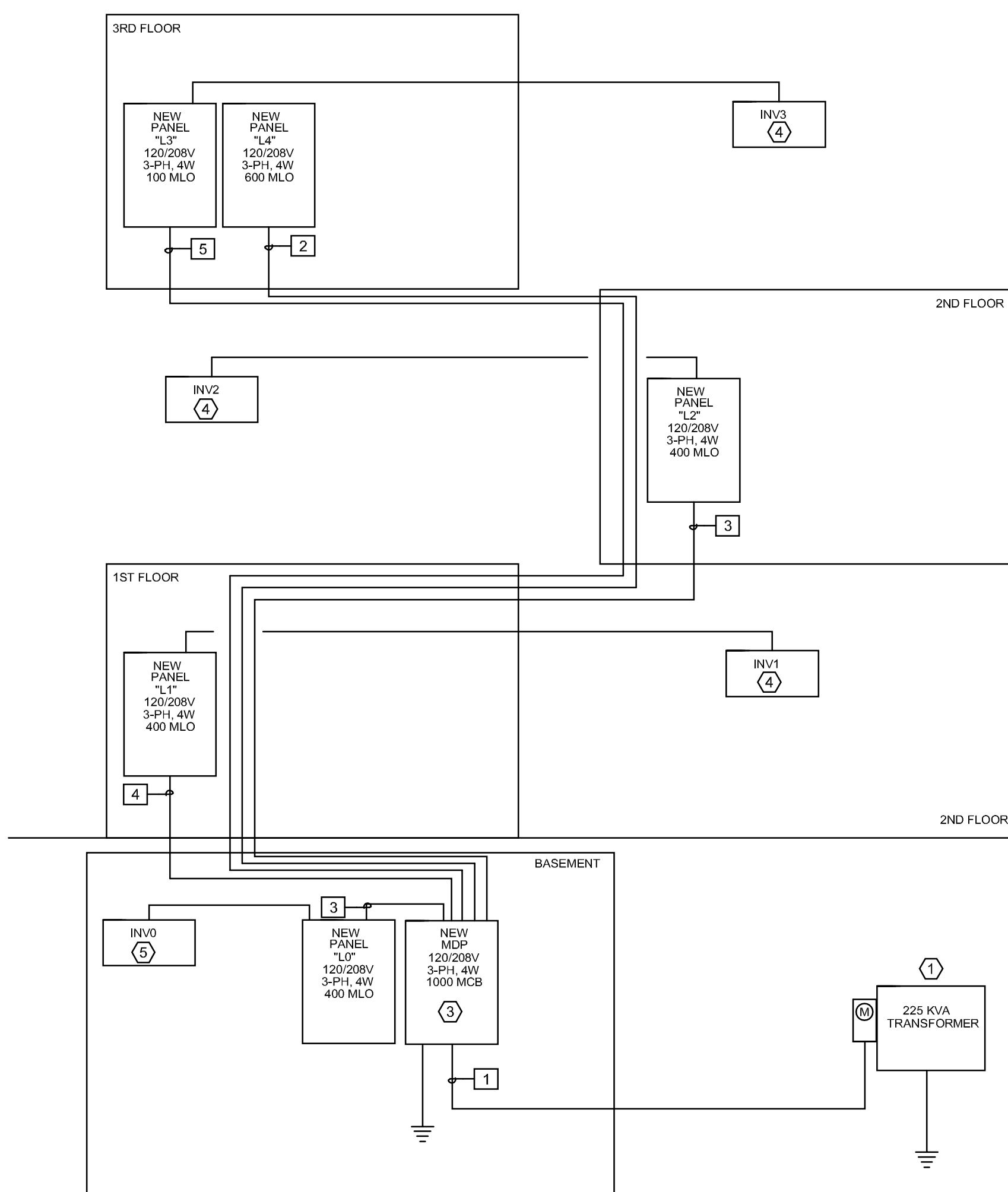
2 GROUNDING BAR DETAIL

NTS



3 GROUNDING DETAIL

NTS



1 ELECTRICAL RISER DIAGRAM

NTS

REVISIONS
 SWL
 DATE
 APPROVED
 DESCRIPTION

KOMATSU
 ARCHITECTURE
 ISSUED FOR CONSTRUCTION

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POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION
 101 W. Church Street
 Livingston, TX 77351
 ELECTRICAL DETAILS

SHEET SIZE 22 x 34
 SCALE:
 KAI JOB NUMBER: 2017.171B
 SPECIFICATIONS NO.: N/A
 DATE: MARCH 11, 2022
 SHEET OF SEQ #

44.03.11.2022.19004
SOLARE
 ENGINEERING UNLIMITED, INC.
 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102
 Tel 817.526.6800 Fax 817.526.6645 www.solare-eng.com

E6.01

LO

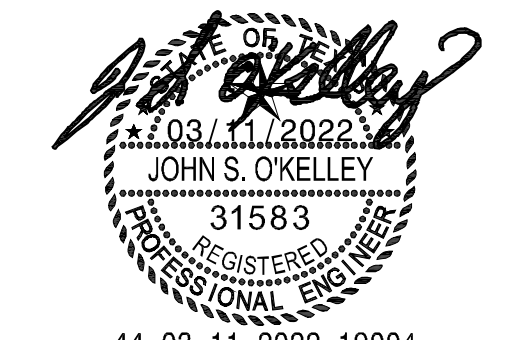
ROOM MOUNTING SURFACE FED FROM MDP NOTE			VOLTS 208Y/120V 3P 4W BUS AMPS 400 NEUTRAL 100%			AIC 25,000 MAIN BKR MLO LUGS STANDARD					
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	LIGHTING	1.08			2	15/1	INVO	0.5		
3	20/1	LIGHTING		1.38		4	15/2	FCU-001 & 002		0.052	
5	20/1	LIGHTING			0.952	6					0.052
7	20/1	LIGHTING	0.813			8	20/1	HVAC CONTROL PANEL	0.5		
9	30/1	ELEVATOR SUMP PUMP		1.66		10	20/1	DEDICATED EQUIPMENT CIRCUIT		0.18	
11	20/1	RECEPTACLE			0.9	12	20/1	RECEPTACLE			1.08
13	20/1	RECEPTACLE	1.44			14	20/1	DEDICATED EQUIPMENT CIRCUIT	0.18		
15	20/1	DEDICATED EQUIPMENT CIRCUIT		0.18		16	20/1	RECEPTACLE		0.18	
17	20/1	RECEPTACLE			0.9	18	30/2	RECEPTACLE			1.5
19	20/1	DEDICATED EQUIPMENT CIRCUIT	0.18			20			1.5		
21	20/1	RECEPTACLE		0.9		22	20/1	RECEPTACLE		1.08	
23	20/1	RECEPTACLE			1.26	24	20/1	DEDICATED EQUIPMENT CIRCUIT			0.54
25	30/3	VAV-001	2.33			26	20/1	RECEPTACLE	0.9		
27				2.33		28	20/1	RECEPTACLE		1.62	
29					2.33	30	20/2	UH-1			1.5
31	30/3	VAV-002	2.33			32			1.5		
33				2.33		34	20/2	UH-2		1.5	
35					2.33	36					1.5
37	60/3	VAV-003	5			38	20/3	VAV-004	1		
39				5		40				1	
41					5	42					1
43	30/2	WH-1	2			44	30/3	VAV-005	2.17		
45				2		46				2.17	
47	20/1	CP-1 & RECEPTACLE			0.255	48					2.17
49	20/1	RECEPTACLE	1			50	20/3	VAV-006	1.67		
51	20/1	(E) SOUTHSIDE LAWN PLUGS		0.36		52				1.67	
53	20/1	(E) NORTHSIDE LAWN PLUGS			0.36	54					1.67
55	20/1	(E) INDIRECT LIGHT	0.5			56	20/1	(E) BOX PLUG PHOTOCELL	0.36		
57	20/1	(E) OVERHEAD GAZEBO LIGHTS		0.5		58	20/1	(E) SOUTHSIDE PLUG PHOTO		0.36	
59	20/1	(E) UNIDENTIFIED CIRCUIT #13 GAZEBO PANEL			1	60	20/1	(E) NORTHWEST PLUG			0.36
61	20/1	(E) GAZEBO ENTRY LIGHTS	0.5			62	20/1	(E) SERVICE PLUG	0.36		
63	20/1	(E) ENCLOSED CIRCUIT BREAKER #4		0.36		64	20/2	(E) POLE LIGHTS PHOTO CELL		0.5	
65	20/1	(E) ENCLOSED CIRCUIT BREAKER #5			0.36	66					0.5
67	20/1	LIGHTING	1.6			68	20/1	ELEVATOR PIT LIGHTING	0.05		
69	20/1	LIGHTING		.94		70	20/1	ELEVATOR PIT RECEPTACLE		.18	
71	20/1	LIGHTING			.85	72	40/2	DUPLEX PUMP SYSTEM			2.01
73	20/1	SPACE	0			74			2.01		
75	20/1	SPACE		0		76				2.01	
77	20/1	SPACE			0	78	20/1	SPACE			0
79	20/1	SPACE	0			80	20/1	SPACE	0		
81	20/1	SPACE		0		82	20/1	SPACE		0	
83	20/1	SPACE			0	84	20/1	SPACE			0
TOTAL CONNECTED KVA BY PHASE			29.9	30.4	30.5						
LIGHTING			11.61	14.52	(125%)	RECEPTACLES			19.3	14.65	(50%>10)
LARGEST MOTOR			6.02	1.51	(25%)	HEATING			53.5	53.5	(100%)
MOTORS			3.4	3.4	(100%)	COOLING			0.104	0	(0%)
TOTAL LOAD						TOTAL LOAD			87.58		
BALANCED 3-PHASE AMPS						BALANCED 3-PHASE AMPS			243		

MDP

ROOM MOUNTING SURFACE FED FROM UTILITY NOTE			VOLTS 208Y/120V 3P 4W BUS AMPS 1000 NEUTRAL 100%			AIC 25,000 MAIN BKR 1000 LUGS STANDARD			
CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA			FEEDER RACEWAY AND CONDUCTORS			
			A	B	C				
1	400/3	PANEL L0	29.9	30.4	30.5	3-1/2"C,3#600kcmil,#600kcmil N,#2G			
2	300/3	PANEL L1	23.1	20.5	23.8	3"C,3#350kcmil,#350kcmil N,#4G			
3	400/3	PANEL L2	28.6	25.6	25.3	3-1/2"C,3#600kcmil,#600kcmil N,#2G			
4	100/3	PANEL L3	8.18	5.65	7.29	1-1/2"C,3#1,#1N,#8G			
5	600/3	PANEL L4	72	72	67.5	(2)3"C,3#350kcmil,#350kcmil N,#1G			
6	100/2	SPACE	0	0					
7	200/2	SPACE	0	0					
8	200/2	SPACE	0	0	0				
9	20/3	SPACE	0	0	0				
10	20/3	SPACE	0	0	0				
11	20/3	SPACE	0	0	0				
12	20/3	SPACE	0	0	0				
TOTAL CONNECTED KVA BY PHASE			162	155	155				
CONN KVA			23.5	29.4	(125%)	RECEPTACLES	66.1	38.1	(50%>10)
LARGEST MOTOR			26.1	6.52	(25%)	CONTINUOUS	2.1	2.63	(125%)
MOTORS			30.3	30.3	(100%)	HEATING	212	212	(100%)
						COOLING	180	0	(0%)
						TOTAL LOAD	319		
						BALANCED 3-PHASE AMPS	885		

L1

ROOM MOUNTING FLUSH FED FROM MDP NOTE			VOLTS 208Y/120V 3P 4W BUS AMPS 400 NEUTRAL 100%			AIC 22,000 MAIN BKR MLO LUGS STANDARD					
CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	20/1	LIGHTING	0.991			2	20/1	RECEPTACLE	1.62		
3	20/1	LIGHTING		0.22		4	20/1	RECEPTACLE		0.54	
5	20/1	LIGHTING			0.825	6	20/1	SPACE			0
7	20/1	LIGHTING	0.688			8	20/1	COURTROOM FLOOR BOXES	1.08		
9	20/1	LIGHTING		0.735		10	20/2	FCU-101		0.027	
11	20/1	INVI			0.5	12					0.027
13	20/1	DEDICATED EQUIPMENT CIRCUIT	0.18			14	20/1	FACP	0.5		
15	20/1	RECEPTACLE		1.26		16	20/1	DEDICATED EQUIPMENT CIRCUIT		0.18	
17	20/1	RECEPTACLE			1.08	18	20/1	RECEPTACLE			0.9
19	20/1	RECEPTACLE	1.44			20	20/1	DEDICATED EQUIPMENT CIRCUIT	0.18		
21	20/1	DEDICATED EQUIPMENT CIRCUIT		0.18		22	20/1	DEDICATED EQUIPMENT CIRCUIT		0.18	
23	20/1	RECEPTACLE			0.9	24	20/1	RECEPTACLE	1.08		1.08
25	20/1	DEDICATED EQUIPMENT CIRCUIT	0.18			26	20/1	RECEPTACLE		1.08	
27	20/1	RECEPTACLE		1.08		28	20/1	RECEPTACLE		0.9	
29	20/1	RECEPTACLE			1.08	30	20/1	RECEPTACLE			1.44
31	40/3	VAV-101	3.33			32	20/3	VAV-105 & 107	1.83		
33				3.33		34				1.83	
35					3.33	36					1.83
37	20/3	VAV-102	1.67			38	20/3	VAV-106	1.33		
39				1.67		40				1.33	
41					1.67	42					1.33
43	20/3	VAV-103	1			44	50/3	VAV-108	4		
45				1		46				4	
47					1	48					4
49	20/3	VAV-104	1.17			50	20/3	VAV-109	0.833		
51				1.17		52				0.833	
53					1.17	54					0.833
55	20/1	SPACE	0			56	20/1	SPACE	0		
57	20/1	SPACE		0		58	20/1	SPACE		0	
59	20/1	SPACE			0	60	20/1	SPACE			0
61	20/1	SPACE	0			62	20/1	SPACE		0	
63	20/1	SPACE			0	64	20/1	SPACE		0	
65	20/1	SPACE			0	66	20/1	SPACE		0	
67	20/1	SPACE	0			68	20/1	SPACE		0	
69	20/1	SPACE			0	70	20/1	SPACE		0	
71	20/1	SPACE			0	72	20/1	SPACE		0	
TOTAL CONNECTED KVA BY PHASE			23.1	20.5	23.8						
LIGHTING			4.76	5.95	(125%)	RECEPTACLES			16.6	13.3	(50%>10)
LARGEST MOTOR			0.054	0.014	(25%)	CONTINUOUS			0.5	0.625	(125%)
MOTORS			0.054	0.054	(100%)	HEATING			45.5	45.5	(100%)
						TOTAL LOAD			65.4		
						BALANCED 3-PHASE AMPS			182		



44.03.11.2022.19004
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POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION
 101 W. Church Street
 Livingston, TX 77351
 ELECTRICAL DETAILS

KOMATSU
 ARCHITECTURE
 ISSUED FOR CONSTRUCTION

REVISIONS
 SWL
 DATE
 APPROVED

SHEET SIZE 22 x 34
 SCALE:
 KAI JOB NUMBER: 2017.171B
 SPECIFICATIONS NO.: N/A
 DATE: MARCH 11, 2022
 SHEET OF SEQ #

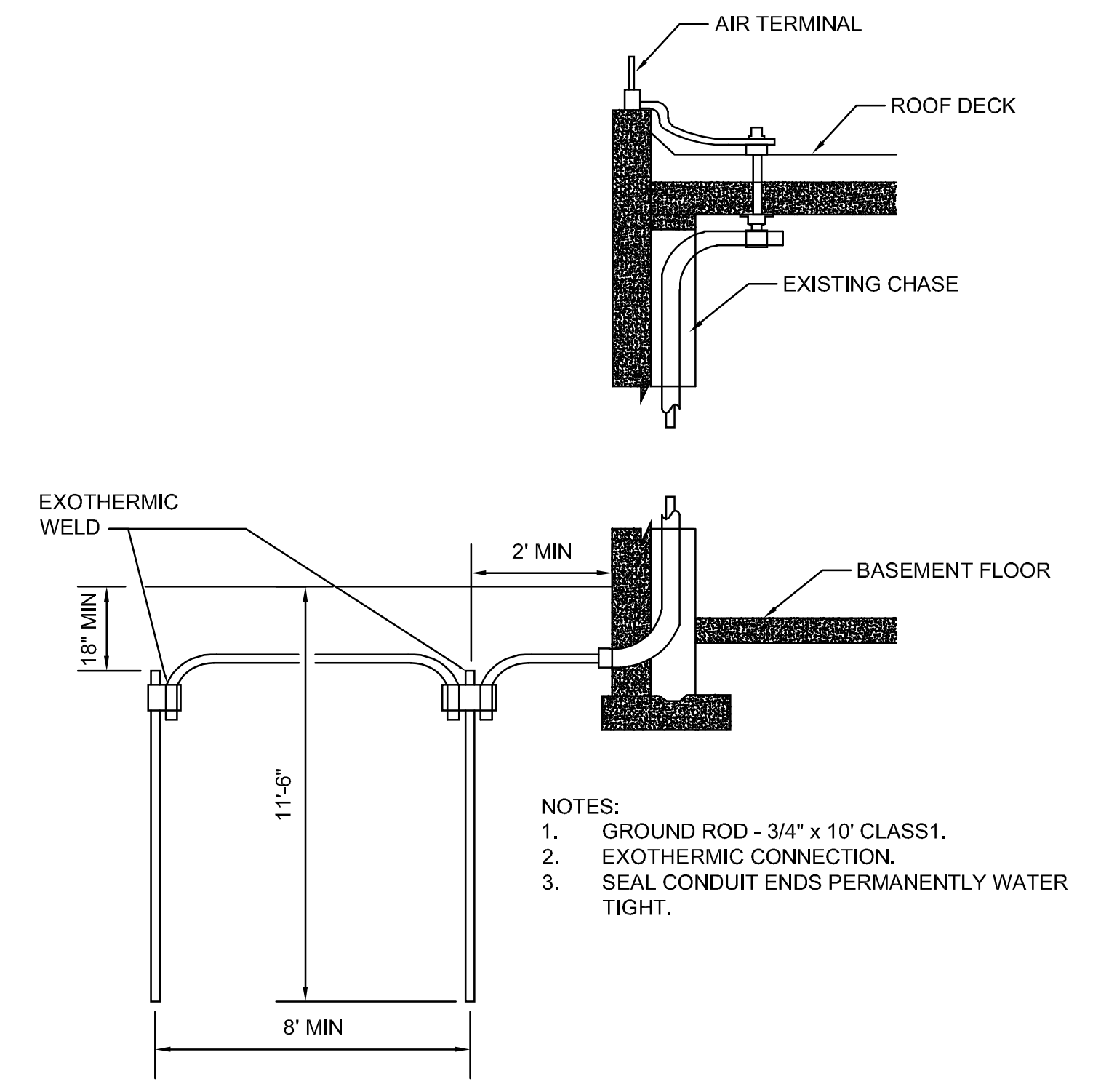
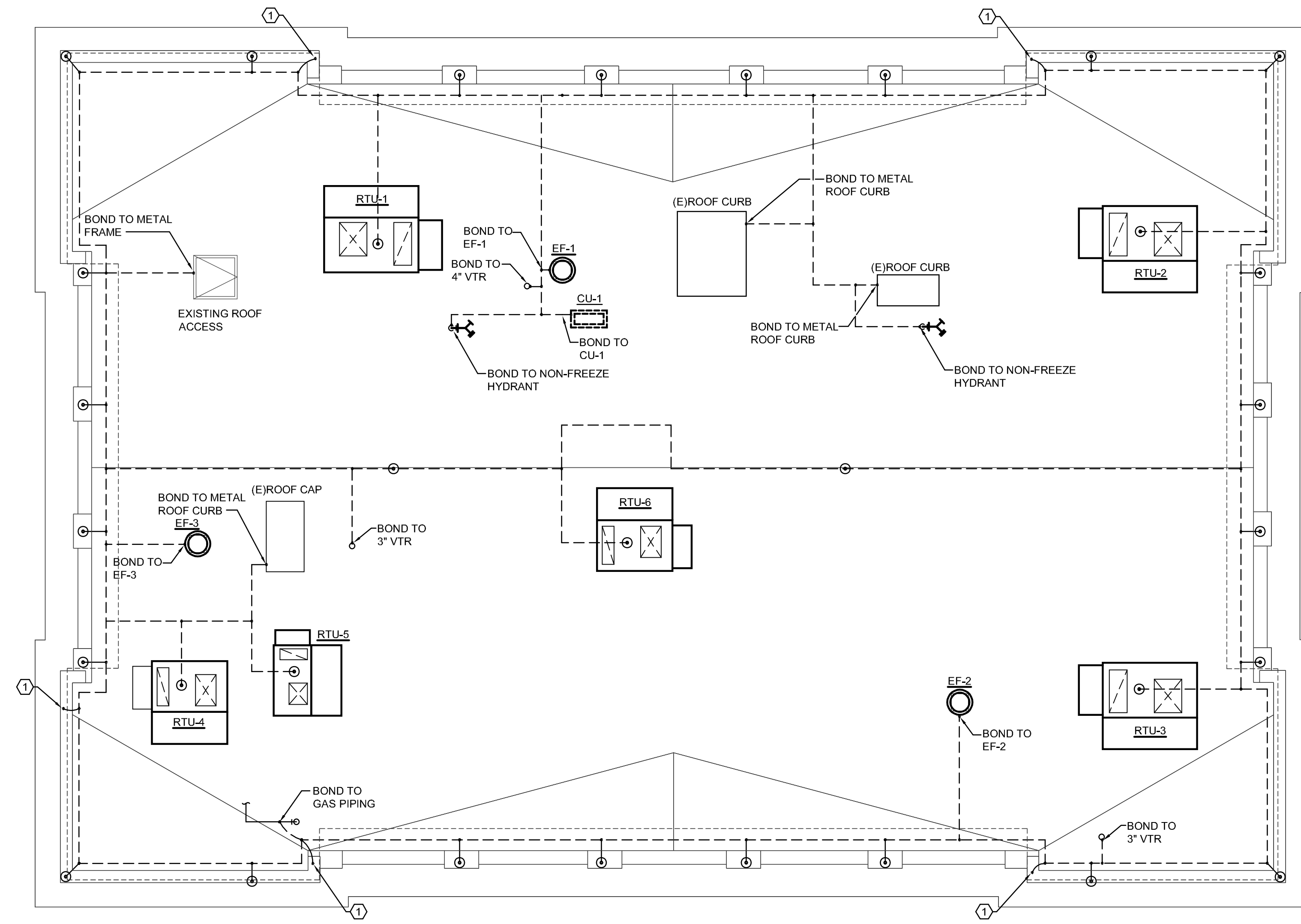
E6.02

NOTES BY SYMBOL "#"

① DOWN CONDUCTOR IN METAL CONDUIT DOWN CHASE TO BASEMENT LEVEL AND OUT TO 3/4" x 10'-0" DRIVEN GROUND RODS (2). BOND DOWN CONDUCTOR TO METAL CONDUIT @TOP AND BOTTOM. SEE DETAIL #1 THIS SHEET.

GENERAL NOTES

1. ALL LIGHTENING PROTECTION EQUIPMENT INSTALLATION AND EQUIPMENT SHALL BE IN COMPLIANCE WITH NFPA 780. SYSTEM SHALL HAVE LPI SYSTEM CERTIFICATE AND SHALL HAVE UL MASTER LABEL.
2. ⊕ INDICATES BASE-MOUNTED AIR TERMINAL.
3. LIGHTENING PROTECTION SYSTEM SHALL BE CLASS 1.



2 DOWN CONDUCTOR DETAIL - TYPICAL FIVE LOCATIONS
NOT TO SCALE

1 LIGHTENING PROTECTION PLAN
1/8" = 1' - 0"

NO.	DATE	DESCRIPTION	BY	APP.

KOMATSU
ARCHITECTURE

ISSUED FOR CONSTRUCTION

THE RECORD COPY OF THIS DRAWING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC., 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

LIGHTENING PROTECTION PLAN

JOHN S. O'KELLEY
REGISTERED PROFESSIONAL ENGINEER
31583
44.03.11.2022.19004

SOLARE
ENGINEERING UNLIMITED, INC.
1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102
Tel 817.526.6900 Fax 817.526.6643 www.solare-eng.com

8' 0 8' 16'
1/8"=1'-0"

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	LP1.00

PLUMBING SYMBOLS AND ABBREVIATIONS

NOTE: ALL SYMBOLS AND ABBREVIATIONS SHOWN ARE NOT NECESSARILY USED ON THE DRAWINGS

GENERAL NOTES

- PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. PROVIDE ALL PERMITS, INSPECTIONS, LICENSES AND FEES. FURNISH ALL LABOR, EQUIPMENT, SUPPLIES AND MATERIALS NECESSARY TO PROVIDE COMPLETE AND OPERATIONAL SYSTEMS.
- THE DRAWINGS AND SPECIFICATIONS INDICATE THE GENERAL DESIGN AND ARRANGEMENT OF PIPES, FIXTURES, EQUIPMENT, SYSTEMS, ETC. INFORMATION SHOWN IS DIAGRAMMATIC IN CHARACTER AND DOES NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DO NOT SCALE THE DRAWINGS FOR DIMENSIONS. TAKE ALL DIMENSIONS, MEASUREMENTS, EQUIPMENT LOCATIONS, LEVELS, ETC FROM THE ARCHITECTURAL DRAWINGS AND FROM THE EQUIPMENT TO BE FURNISHED. PIPING MAY BE RELOCATED OR OFFSET FOR PROPER CLEARANCES OR TO AVOID CONFLICTS WITH OTHER TRADES. THE DESIGN INTENT (I.E. PITCHES, VELOCITIES, PRESSURE DROPS, VOLTAGE DROPS, ETC) CANNOT BE GREATLY ALTERED WITHOUT THE APPROVAL OF THE ARCHITECT. THE COST OF THESE DEVIATIONS TO AVOID INTERFERENCE SHALL BE PART OF THE ORIGINAL CONTRACT BID.
- EACH SUBCONTRACTOR SHALL CONFER AND COOPERATE WITH ALL OTHER TRADES TO COORDINATE THEIR WORK. COORDINATION SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO MATERIALS AND EQUIPMENT ROUTED IN CEILING AND WALL CAVITIES, EQUIPMENT ARRANGEMENT IN MECHANICAL SPACES, INCLUDING EQUIPMENT CLEARANCE REQUIREMENTS, ELEVATIONS AND DIMENSIONS OF STRUCTURAL MEMBERS AND OPENINGS, ETC. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY CONFLICTS.
- BASE FINAL INSTALLATION OF MATERIALS AND EQUIPMENT ON ACTUAL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE. FIELD MEASURE FOR MATERIALS AND EQUIPMENT REQUIRING EXACT FIT. NO EXTRAS WILL BE GIVEN FOR THE CONTRACTORS FAILURE TO FIELD COORDINATE.
- THE OWNER OR ENGINEER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS OR FOR MEANS, METHODS, TECHNIQUES, CONSTRUCTION SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THE WORK.
- THE CONTRACTOR SHALL LOCATE ALL EQUIPMENT THAT MUST BE SERVICED, OPERATED, OR MAINTAINED IN FULLY ACCESSIBLE POSITIONS. EQUIPMENT SHALL INCLUDE (BUT NOT LIMITED TO) VALVES, SHOCK ABSORBERS, TRAPS, CLEANOUTS, MOTORS, CONTROLLERS, SWITCHGEAR, AND DRAIN POINTS IF REQUIRED FOR BETTER ACCESSIBILITY. FURNISH ACCESS DOORS FOR THIS PURPOSE. MINOR DEVIATIONS FROM THE DRAWINGS MAY BE ALLOWED TO PROVIDE FOR BETTER ACCESSIBILITY. ANY CHANGES SHALL BE APPROVED BY THE ARCHITECT AND CONSTRUCTION MANAGER/GENERAL CONTRACTOR PRIOR TO MAKING THE CHANGE.
- THE CONTRACTOR SHALL PROVIDE ACCESS DOORS, WALL OPENINGS, ROOF OPENINGS OR ANY OTHER CONSTRUCTION REQUIREMENT NEEDED TO ACCOMMODATE THE PLUMBING EQUIPMENT. LOCATIONS OF THESE OPENINGS SHALL BE SUBMITTED IN SUFFICIENT TIME TO BE INSTALLED IN THE NORMAL COURSE OF WORK.
- THE CONTRACTOR SHALL COORDINATE ELECTRICAL REQUIREMENTS OF PLUMBING EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO THE PURCHASE AND INSTALLATION OF ANY ELECTRICAL GEAR OR CONDUIT.
- PROVIDE VIBRATION ISOLATORS FOR MOTOR DRIVEN PLUMBING EQUIPMENT UNLESS NOTED OTHERWISE. PROVIDE ISOLATION AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
- THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL WALL CLEANOUTS, ACCESS DOORS, ETC WITH THE ARCHITECT AND ALL OTHER TRADES PRIOR TO INSTALLATION. IF A CONFLICT WITH MILLWORK, LIGHT SWITCHES, WINDOWS, ETC EXISTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF THE POTENTIAL INTERFERENCE PRIOR TO INSTALLATION.
- PLUMBING VENTS THROUGH THE ROOF SHALL BE A MINIMUM OF 10 FEET FROM ALL OUTSIDE AIR INTAKES AND A MINIMUM OF 5 FEET FROM EXTERIOR PERIMETER WALLS.
- SOME PIPES SHOWN ON EACH FLOOR PLAN MAY BE SHOWN WITH AN OFFSET FOR CLARITY.
- PLUMBING FIXTURES AND TRIM OF LIKE KIND SHALL BE OF THE SAME MANUFACTURER THROUGHOUT THE PROJECT. TYPICAL CATEGORIES INCLUDE THE FOLLOWING:
 - WATER CLOSETS, LAVATORIES, URINALS
 - ELECTRIC WATER COOLERS, DRINKING FOUNTAINS
 - FAUCETS, MIXING VALVES
 - TAIL PIECE, FIXTURE TRAPS, ESCUTCHEONS, ARM EXTENSIONS, STRAINERS
 - FIXTURE CARRIERS, FLOOR DRAINS, FLOOR SINKS, ROOF DRAINS, OVERFLOW DRAINS COUNTER TOP SINKS
- PROVIDE WATER HAMMER ARRESTERS BETWEEN THE NEXT TO LAST AND LAST FIXTURE AT EACH BATTERY OF PLUMBING FIXTURES IN ACCORDANCE WITH THE WATER HAMMER ARRESTER SCHEDULE AND THE PLUMBING AND DRAINAGE INSTITUTE STANDARD PDI-WH-201.
- ALL SANITARY WASTE PIPING WITHIN THE BUILDING ENVELOPE SHALL HAVE MINIMUM SLOPES AS REQUIRED BY THE LOCAL CODE AUTHORITY. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS INDICATED ON FLOOR PLANS PRIOR TO INSTALLATION OF ANY SITE UTILITIES AND CONNECTION INTO EXISTING SERVICES.
- COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE TEXAS ACCESSIBILITY'S STANDARD (TAS). PLUMBING CONTRACTOR SHALL PROVIDE PLUMBING FIXTURES WITH FLUSH VALVE HANDLES LOCATED ON THE WIDE SIDE OF EACH STALL.
- SEAL ALL PIPE PENETRATIONS THROUGH FIRE RATED BUILDING ELEMENTS WITH AN APPROVED FIRE PROOFING MATERIAL.
- ALL FLOOR DRAIN AND FLOOR SINK TRAPS SHALL BE PRIMED WITH LISTED TRAP PRIMERS. PROVIDE SPIGOT ADAPTER ON ALL FLOOR DRAINS. HORIZONTAL TRAP PRIMER PIPING SHALL NOT BE ROUTED WITHIN FLOOR SLAB.
- THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL NATURAL GAS UTILITY COMPANY TO EXTEND NATURAL GAS SERVICE TO LOCATION INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL PAY ALL FEES AND COSTS ASSOCIATED/REQUIRED BY THE LOCAL GAS UTILITY COMPANY FOR THE EXTENSION OF THE GAS SERVICE. THE CONTRACTOR SHALL PROVIDE ALL PIPING, VALVES, ETC THAT ARE NOT PROVIDED BY THE LOCAL GAS UTILITY COMPANY AND THAT ARE REQUIRED FOR CONNECTION OF THE GAS METER AND REGULATOR(S) FOR A COMPLETE OPERATIONAL SYSTEM. THE CONTRACTOR SHALL VERIFY THE NATURAL GAS PRESSURE PROVIDED BY THE NATURAL GAS UTILITY COMPANY AND PROVIDE ADDITIONAL REGULATORS AS REQUIRED BY THE GAS FIRED EQUIPMENT INSTALLED.
- CONTRACTOR SHALL PROVIDE A MINIMUM HORIZONTAL LENGTH OF 10' OF 1 1/2" THICK PIPING INSULATION ON ALL STORM AND OVERFLOW PIPING WITHIN THE BUILDING STARTING FROM EACH DRAIN BODY.

WATER HAMMER ARRESTER SCHEDULE

P.D.I. SIZE	A	B	C	D	E	F
FIXTURE UNITS	1-11	12-32	33-60	61-113	114-154	155-330

- NOTES:
- ALL WHA'S SHALL BE PISTON TYPE WITH EPDM O-RINGS, SIOUX CHIEF'S SERIES 650 OR EQUAL.
 - ALL WHA'S SHALL BE ANSI/ASSE 1010 2004 CERTIFIED AND APPROVED FOR INSTALLATION WITH NO ACCESS PANEL REQUIRED.
 - SIZE AND LOCATE WATER HAMMER ARRESTERS IN ACCORDANCE WITH PDI PAMPHLET PDI-WH-201.

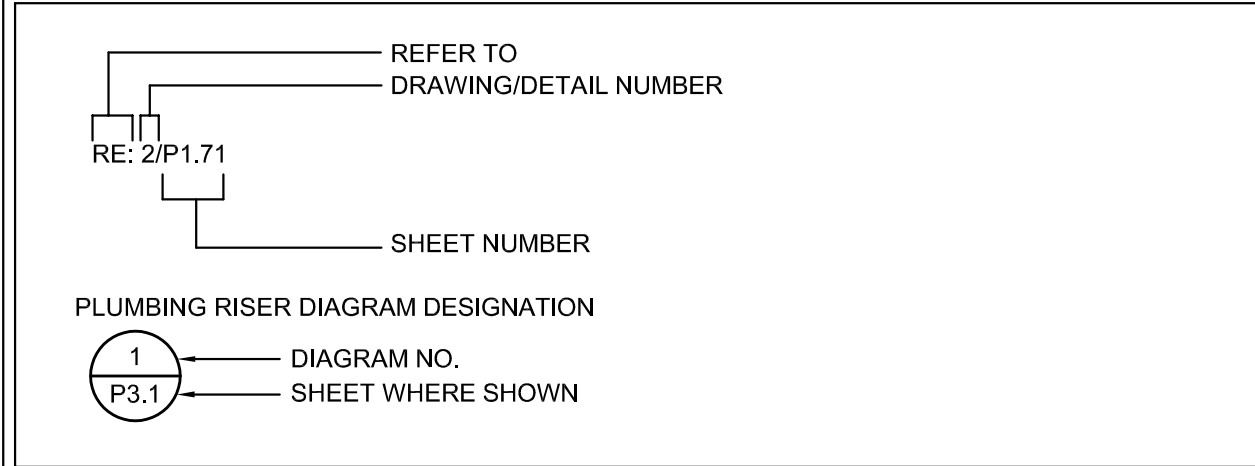
ABBREVIATIONS

A/E	ARCHITECT/ENGINEER	L	LENGTH
AFF	ABOVE FINISHED FLOOR	LB	POUNDS
AHU	AIR HANDLING UNIT	LRA	LOCKED ROTOR AMPS
APPROX	APPROXIMATE	MAX	MAXIMUM
BATT	BATTERY	MCA	MINIMUM CIRCUIT AMPACITY
BD	BUILDING DRAIN (BELOW FLOOR)	MIN	MINIMUM
B.F.G.	BELOW FINISHED GRADE	MSB	MOP SINK BASIN
BS	BUILDING SEWER (OUTSIDE OF BLDG)	NA	NOT APPLICABLE
CU	COPPER, CONDENSING UNIT	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
CW	DOMESTIC COLD WATER	NFWH	NON-FREEZE WALL HYDRANT
D	EQUIPMENT DRAIN	N/O, N/C	NORMALLY OPEN, NORMALLY CLOSED
DCO	TWO-WAY GRADE CLEANOUT	O/C	ON CENTER
DEG	DEGREES	OFD	ROOF OVERFLOW DRAIN
DSN	DOWNSPOUT NOZZLE	PCO	PLUG CLEANOUT
(E)	EXISTING	PH	PHASE
EQUIP	EQUIPMENT	PROVIDE	FURNISH AND INSTALL
EWC	ELECTRIC WATER COOLER	PSI	POUNDS PER SQUARE INCH
*F	DEGREES FAHRENHEIT	RD	ROOF DRAIN
FCO	FLOOR CLEANOUT	RE:	REFERENCE, REFER
FCU	FAN COIL UNIT	RLA	RUNNING LOAD AMPS
FD	FLOOR DRAIN	RM	ROOM
FS	FLOOR SINK	RPBFP	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER
FT.	FOOT, FEET	RPZ	REDUCED PRESSURE ZONE
FVC	FIRE VALVE CABINET	S	SINK
G	NATURAL GAS	SD	STORM DRAIN (BELOW FLOOR)
GCO	GRADE CLEANOUT	ST	STORM WATER (ABOVE CEILING)
GWH	NATURAL GAS WATER HEATER	SSD	SUBSURFACE DRAIN
H	HEIGHT	THRU	THROUGH
HB	HOSE BIBB	TP	TRAP PRIMER
HP	HORSEPOWER	TYP	TYPICAL
HW	DOMESTIC HOT WATER	U	URINAL
HWC	DOMESTIC HOT WATER CIRCULATION LOOP	UL	UNDERWRITERS LABORATORIES, INC.
HWTM	HOT WATER TEMPERATURE MAINTENANCE CABLE	V	SANITARY VENT
HZ	HERTZ	VTR	SANITARY VENT THRU ROOF
IE	INVERT ELEVATION	W	SANITARY WASTE (ABOVE FLOOR)
IN.	INCH, INCHES	WC	WATER CLOSET
J-BOX	JUNCTION BOX	WCO	WALL CLEANOUT
kw	KILOWATT	W/	WITH
		W/O	WITHOUT

LINE TYPES

SYMBOL	DESCRIPTION
—W—	SANITARY SEWER (ABOVE CEILING)
—BD—	SANITARY SEWER (BELOW FLOOR, BUILDING DRAIN)
—BS—	SANITARY SEWER (OUTSIDE OF BUILDING, BUILDING SEWER)
—GW—	GREASY WASTE (ABOVE CEILING)
—GD—	GREASY WASTE (BELOW FLOOR)
—D—	EQUIPMENT DRAIN (ABOVE CEILING)
—ST—	STORM WATER PIPING (ABOVE CEILING)
—SD—	STORM WATER PIPING (BELOW FLOOR/GRADE)
—OFD—	OVERFLOW DRAIN (ABOVE CEILING)
—SSD—	SUBSURFACE DRAINAGE
—S—	SANITARY VENT
—DHW—	DOMESTIC HOT WATER
—DHW—	DOMESTIC HOT WATER
—DHW—	DOMESTIC HOT WATER CIRCULATION
—G—	NATURAL GAS
—F—	FIRE PROTECTION MAIN WATER SUPPLY
—SP—	STANDPIPE FIRE PROTECTION WATER
—WP—	AUTOMATIC FIRE SPRINKLER (WET)
—PA—	AUTOMATIC FIRE SPRINKLER (PRE-ACTION)
—DP—	AUTOMATIC FIRE SPRINKLER (DRY)
—A—	COMPRESSED AIR
→	DIRECTION OF FLOW
↘	DIRECTION OF PIPE SLOPE DOWN
✕	PIPE DEMOLITION

DRAWING/DETAIL REFERENCE



MISCELLANEOUS

- ① DRAWING NOTE REFERENCE (I.E., NOTES BY SYMBOL)
- ⊕ CONNECTION INTO EXISTING

VALVES AND FITTINGS

SYMBOL	DESCRIPTION
⊘	SHUT-OFF / ISOLATION VALVE
⊘	BALL VALVE
⊘	BUTTERFLY VALVE
⊘	GLOBE VALVE
⊘	PLUG VALVE / GAS COCK
⊘	CHECK VALVE
⊘	STRAINER
⊘	CALIBRATED BALANCING VALVE
⊘	GAS PRESSURE REGULATOR
⊘	FLOW SWITCH
⊘	UNION (DIELECTRIC)
⊘	VALVE IN RISER
⊘	END RISE (90° ELL)
⊘	END DROP (90° ELL)
⊘	RISE OR DROP
⊘	TEE OUT OF TOP OF PIPE
⊘	TEE OUT OF BOTTOM OF PIPE
⊘	CAP ON END OF PIPE
⊘	WALL CLEANOUT
⊘	PLUG CLEANOUT
⊘	TWO WAY CLEANOUT
⊘	GRADE CLEANOUT
⊘	NON-FREEZE WALL HYDRANT OR HOSE BIBB
⊘	FLOOR DRAIN
⊘	FLOOR CLEANOUT
⊘	SHUT-OFF / ISOLATION VALVE
⊘	OS&Y GATE VALVE
⊘	FIRE DEPARTMENT SIAMESE CONNECTION (WALL)
⊘	FIRE DEPARTMENT SIAMESE CONNECTION (FREE STANDING)
⊘	PRESSURE GAUGE
⊘	ALARM CHECK VALVE
⊘	DRY ALARM CHECK VALVE
⊘	DRY ALARM CHECK VALVE WITH QUICK OPENING DEVICE
⊘	DELUGE OR PRE-ACTION ALARM CHECK VALVE

BASIS OF PLUMBING DESIGN

PRIMARY CODES:
 PLUMBING: 2015 INTERNATIONAL PLUMBING CODE (WITH CITY AMENDMENTS).
 FUEL GAS: 2015 INTERNATIONAL FUEL GAS CODE (WITH CITY AMENDMENTS).
 FIRE PROTECTION: 2015 INTERNATIONAL FIRE CODE (WITH CITY AMENDMENTS)

PROJECT DESIGN VALUES:

SANITARY SEWER AND VENT SYSTEM(S):
 TOTAL DRAINAGE FIXTURES UNITS = __ DFU

DOMESTIC WATER SYSTEM(S):
 TOTAL WATER FIXTURE UNITS = __ FU
 PEAK DEMAND = __ GPM

DOMESTIC HOT WATER SYSTEM(S):
 STORED DOMESTIC HOT WATER TEMPERATURE = 140°F
 TEMPERED DOMESTIC HOT WATER TEMPERATURE = 105°F
 CIRCULATED DOMESTIC WATER SYSTEM

NATURAL GAS SYSTEM(S):
 PRIMARY GAS REGULATOR DISCHARGE GAS PRESSURE X-PSIG
 SECONDARY GAS REGULATOR DISCHARGE GAS PRESSURE X-PSIG
 FINAL GAS REGULATOR DISCHARGE GAS PRESSURE X-OUNCE
 TOTAL NATURAL GAS DEMAND: __ MBH (LONGEST DEVELOPED LENGTH OF PIPE = __)
 PIPE SIZES ON PLAN BASED ON THE FOLLOWING TABLES FOR SCHEDULE 40 METALLIC PIPE (2015 IFGC):
 LESS THAN 2-PSIG (MAX LOSS OF 0.3 IN WC) - TABLE 402.4(1)
 2-PSIG (MAX LOSS OF 1.0 PSIG) - TABLE 402.4(3)
 5-PSIG (MAX LOSS OF 3.5 PSIG) - TABLE 402.4(5)

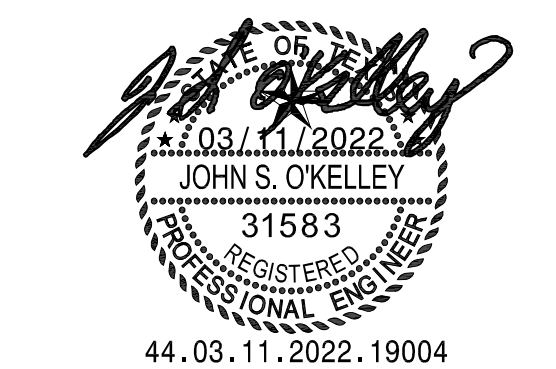
KOMATSU
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POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION
101 W. Church Street
Livingston, TX 77351

PLUMBING GENERAL NOTES AND LEGENDS



44.03.11.2022.19004



SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	

P0.01

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	ROUGH IN (MINIMUM)				MANUFACTURER AND MODEL NUMBER	ADA (TAS)	MARK	DESCRIPTION	ROUGH IN (MINIMUM)				MANUFACTURER AND MODEL NUMBER	ADA (TAS)
		W	V	CW	HW					W	V	CW	HW		
WC1	WATERCLOSET, ADA COMPLIANT, 1.28 GPF, HIGH PERFORMANCE FLUSHOMETER TANK, ELONGATED BOWL, 3" FLUSH VALVE, CLOSE-COUPLED TANK, VITREOUS CHINA, WHITE, 2 1/8" FULLY GLAZED TRAPWAY, 12" ROUGH-IN, ASME A112.19.2M (& 19.6M).	4"	2"	-	-	AMERICAN STANDARD, 215AA104; KOHLER, K-3999; ZURN Z5555-K.	♿	S1	SINK, SINGLE COMPARTMENT, 19"x21"x6", SELF RIMMING, SEAMLESS #18 GAUGE TYPE 304 STAINLESS STEEL, FAUCET LEDGE, MINIMUM 1 3/4" VERTICAL AND HORIZONTAL RADIUS BASIN CORNERS, FULLY UNDERCOATED, ANSI A112.19.3M. DRAIN CENTERED IN REAR OF BASIN.	2"	1 1/2"	-	-	JUST, SL-ADA-1921-A-GR; ELKAY, LRAD-2219	
	SUPPLY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVE AND CHROME PLATED COPPER RISER	-	-	1/2"	-	MCGUIRE, H2166CCLK; OR EQUAL IN T&S BRASS OR BRASSCRAFT			FAUCET, DECK MOUNT, CHROME PLATED BRASS, RIGID SWING GOOSENECK SPOUT, TWO-HANDLE, 1/4 TURN 4" WRIST BLADE HANDLES, 4" CENTERS, NSF 61 COMPLIANT, ANSI A112.18.1M, 2.2 GPM MAX. FLOW RATE	-	-	1/2"	1/2"	CHICAGO, 895-317; MOEN COMMERCIAL, 8278; DELTA 2171WBHDF; T&S BRASS, B-0892	
WC2	FLOOR MOUNTED, BACK OUTLET WATERCLOSET, ADA COMPLIANT, 1.28 GPF, HIGH PERFORMANCE FLUSHOMETER TANK, ELONGATED BOWL, 3" FLUSH VALVE, CLOSE-COUPLED TANK, VITREOUS CHINA, WHITE, 2 1/8" FULLY GLAZED TRAPWAY, 12" ROUGH-IN, ASME A112.19.2M (& 19.6M).	4"	2"	-	-	AMERICAN STANDARD, 209AA137; KOHLER; ZURN	♿		SUPPLY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISERS	-	-	1/2"	1/2"	MCGUIRE, H2166CCLK; OR EQUAL IN T&S BRASS OR BRASSCRAFT	
	SUPPLY AND STOP, LOOSE KEY, CHROME PLATED BRASS VALVE AND CHROME PLATED COPPER RISER	-	-	1/2"	-	MCGUIRE, H2166CCLK; OR EQUAL IN T&S BRASS OR BRASSCRAFT			P-TRAP, CHROME PLATED CAST BRASS BODY WITH CLEANOUT, SEAMLESS WALL BEND, 17 GA.	-	-	-	-	JUST J-ADA-35; OR EQUAL IN MCGUIRE, T&S BRASS OR BRASSCRAFT	
	SEAT, EXTRA HEAVY WEIGHT, POSTURE MOLDED SOLID PLASTIC, ELONGATED, OPEN FRONT, LESS COVER, EXTERNAL CHECK HINGES, STAINLESS STEEL HINGE POSTS, WHITE	-	-	-	-	CHURCH 9500C; BEMIS, 1655C; OLSONITE, 95/SS			TAILPIECE AND FORGED STAINLESS STEEL BASKET STRAINER	-	-	-	-	ELKAY MODEL EZTL8C; HALSEY TAYLOR HAC8FSBL-Q ADA; HAWES HWUACP8LSS; OASIS PF8ACSL; SUNROC ADAD8RBLSC	♿
U1	URINAL, 0.5 GPF, WALL MOUNT, VITREOUS CHINA, 14" EXTENDED FLUSHING RIM, SIPHON JET ACTION, 3/4" INLET SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2	2"	2"	-	-	AMERICAN STANDARD, 6550.001; KOHLER, K-5016-ET; ZURN, Z5730.			TWO STATION WATER COOLER, INDOOR BI-LEVEL WALL MOUNTED, SELF CONTAINED ELECTRIC REFRIGERATION, STAINLESS STEEL BASIN AND CABINET WITH ANTI-SPLASH RIDGE, INTEGRAL DRAIN STRAINER, NON-SQUIRT BUBBLER, PUSH BAR ACTIVATION ON FRONT AND SIDES OF WATER COOLER, REFRIGERATION SYSTEM SERVING BOTH BI-LEVELS TO INCLUDE HIGH EFFICIENCY COMPRESSOR R-134A, FULLY INSULATED STAINLESS STEEL TANK, 8 GPH WITH 50°F SUPPLY TEMPERATURE AND 80°F AMBIENT, 115VOLT, ANSI 117.1, NFS/ANSI 61, ARI STANDARD 1010	2"	1 1/2"	-	-	ELKAY MODEL LKAPREZL; HAWES SK9SS	♿
	FLUSHOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD COUPLING AND FLANGE, NON-HOLD OPEN HANDLE, CHROME PLATED ANGLE STOP WITH STOP CAP, VACUUM BREAKER FLUSH CONNECTION, CAST WALL FLANGE WITH SET SCREW, ANSI/ASME 112.19.6	-	-	3/4"	-	SLOAN, 186-0.5; ZURN, Z6003AV-EWS.			HANDICAPPED COMPLIANT APRON, MOLDED STAINLESS STEEL SKIRT KIT FOR INSTALLATION ON THE HIGH UNIT	-	-	-	-	ELKAY MODEL LKAPREZL; HAWES SK9SS	
	FIXTURE CARRIER, HANGER AND BEARING PLATES, ADJ. SUPPORTING RODS, UPRIGHTS, WELDED FEET	-	-	-	-	JOSAM, SERIES 17560-UR; WATTS, CA-321; ZURN, Z1222; OR JR SMITH, 0632			SERVICE STOP WITH DIELECTRIC COUPLING	-	-	1/2"	-	REFER TO MANUFACTURER FOR REQUIREMENTS	
U2	URINAL, 0.5 GPF, FLOOR MOUNT, VITREOUS CHINA, 16" EXTENDED FLUSHING RIM, SIPHON JET ACTION, 3/4" INLET SPUD, INLET AND OUTLET SPUDS AND HANGERS, ASME/ANSI A112.19.2	2"	2"	-	-	KOHLER, K-4920-T	♿		P-TRAP, PVC, WHITE	-	-	-	-	DEARBORN BRASS, A9701BG; KEYSAN MOEM9100; OR EQUAL	
	FLUSHOMETER VALVE, 0.5 GPF, EXPOSED DIAPHRAGM-TYPE, CHROME PLATED, 3/4" TOP SPUD, SPUD COUPLING AND FLANGE, NON-HOLD OPEN HANDLE, CHROME PLATED ANGLE STOP WITH STOP CAP, VACUUM BREAKER FLUSH CONNECTION, CAST WALL FLANGE WITH SET SCREW, ANSI/ASME 112.19.6	-	-	3/4"	-	SLOAN, 186-0.5; ZURN, Z6003AV-EWS.			FIXTURE CARRIER, STEEL TOP AND BOTTOM PLATES W/ ADJ. HOLES, CHROME PLATED CAP NUTS/WASHERS	-	-	-	-	JOSAM SERIES 17905; WATTS, CA-431-1; OR EQUAL IN ZURN OR JR SMITH	
	FIXTURE CARRIER, HANGER AND BEARING PLATES, ADJ. SUPPORTING RODS, UPRIGHTS, WELDED FEET	-	-	-	-	JOSAM, SERIES 17560-UR; WATTS, CA-321; ZURN, Z1222; OR JR SMITH, 0632			FD1 FLOOR DRAIN, CAST IRON BODY, ANCHOR FLANGE, PRIMARY AND SECONDARY WEEPHOLES, 7" DIA. DUCTILE IRON TRACTOR GRATE, ADJUSTABLE DRAIN HEAD W/MACHINED INTEGRAL BODY THREADS, ASME A112.2.1	-	-	-	-	JOSAM SERIES 32100-7; MIFAB, F1300C-4; ZURN, Z-507-DG	
L1	LAVATORY, 20"x18" VITREOUS CHINA WALL MOUNT, 4" CENTER FAUCET HOLES, FRONT OVERFLOW, CONCEALED ARM CARRIER SYSTEM, DECK MOUNTED FAUCET, INTEGRAL 4" BACKSPASH, ANSI A112.19.2	2"	1 1/2"	-	-	AMERICAN STANDARD, 0355.012; KOHLER, K-2005; ZURN, Z5364; SLOAN, SS-3003.	♿		PROVIDE TRAP SEAL SYSTEM COMPRISED OF AN DRAIN INSERT CONSTRUCTED OF SMOOTH, SOFT, FLEXIBLE, ELASTOMERIC PVC MATERIAL MOLDED INTO SHAPE OF DUCK'S BILL, OPEN ON TOP WITH CURL CLOSURE AT BOTTOM.	-	-	-	-	PROSET SYSTEMS, INC., TRAP GUARD	
	FAUCET, DECK MOUNT, CHROME PLATED BRASS, 4" INTEGRAL SPOUT, TWO-HANDLE, 1/4 TURN, 4" WRIST BLADE HANDLES, 4" CENTERS, NSF 61 COMPLIANT, ANSI A112.18.1M, 0.5 GPM MAX. FLOW RATE	-	-	1/2"	1/2"	CHICAGO FAUCETS, 802-V317E66XKABCP; T&S BRASS, B-0890-VF05; ZURN, Z81104-XL-27M.			FS1 FLOOR SINK, 8"x8"x6", CI BODY, DBL DRAINAGE FLANGE, STAINLESS STEEL DOME STRAINER, 3/4" GRATE, NON-PUNCTURING FLASHING COLLAR, PORCELAIN ENAMEL OR EPOXY COATED INTERIOR	-	-	-	-	JOSAM SERIES 49000-4; MIFAB FS1520-175; ZURN Z-1910	
	SUPPLY AND STOPS, LOOSE KEY, CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISERS	-	-	-	-	MCGUIRE, H2165CCLK; T&S BRASS, B-1305; OR BRASSCRAFT, OCR1912A			PROVIDE TRAP SEAL SYSTEM COMPRISED OF AN DRAIN INSERT CONSTRUCTED OF SMOOTH, SOFT, FLEXIBLE, ELASTOMERIC PVC MATERIAL MOLDED INTO SHAPE OF DUCK'S BILL, OPEN ON TOP WITH CURL CLOSURE AT BOTTOM.	-	-	-	-	PROSET SYSTEMS, INC., TRAP GUARD	
	P-TRAP, CHROME PLATED CAST BRASS BODY WITH CLEANOUT, SEAMLESS WALL BEND, 17 GA.	-	-	-	-	MCGUIRE, 8902; BRASSCRAFT, 507; OR EQUAL IN T&S BRASS			WCO WALL CLEANOUT, CI BODY, RECESSED, THREADED BRASS PLUG, STAINLESS STEEL ACCESS COVER PRIME AND PAINT AS NECESSARY TO MATCH ADJACENT WALL COLOR (RE: ARCH).	-	-	-	-	JOSAM SERIES 58890; MIFAB C1460; ZURN Z-1441	
	OFFSET TAILPIECE AND STRAINER, CHROME PLATED CAST BRASS	-	-	-	-	MCGUIRE, 155WC; OR EQUAL IN T&S BRASS; OR BRASSCRAFT			FCO FLOOR CLEANOUT, COATED CAST IRON BODY, COMBINATION ADJUSTABLE ROUND STAINLESS STEEL COVER AND PLUG TOP ASSEMBLY, GASKET SEAL, ASME 112.36.2	-	-	-	-	JOSAM SERIES 58360; MIFAB C1000-R/S; ZURN Z-1400	
	FIXTURE CARRIER, CONCEALED ARMS, LEVELING AND SECURING SCREWS, UPRIGHTS, WELDED FEET	-	-	-	-	JOSAM, SERIES 17100; WATTS, CA-411; ZURN, Z1231; OR JR SMITH, 0700			GCO GRADE CLEANOUT, HEAVY DUTY COATED CAST IRON ACCESS BODY WITH ANCHOR FLANGES, HEAVY DUTY DUCTILE IRON ACCESS COVER WITH VANDAL RESISTANT STAINLESS STEEL SCREWS	-	-	-	-	JOSAM SERIES 56680-5-26-VP; MIFAB C1300-MF-6; ZURN Z-1474-SG-VP	
	THERMOSTATIC MIXING VALVE, 0.25 GPM MINIMUM FLOW, INTEGRAL INLET CHECK VALVES AND STRAINER, SET TEMPERATURE TO 105°, ASSE 1070.	-	-	1/2"	1/2"	WATTS, LFUSG-B; LEONARD, 170-LF; OR EQUAL			DCO 2-WAY GRADE CLEANOUT, TWO-RISER CLEANOUT BODY WITH HEAVY DUTY COATED CAST IRON ACCESS BODY WITH ANCHOR FLANGES, HEAVY DUTY DUCTILE IRON ACCESS COVER WITH VANDAL RESISTANT STAINLESS STEEL SCREWS	-	-	-	-	JOSAM SERIES 56680-5-26-VP; MIFAB C1300-MF-6; ZURN Z-1474-SG-VP	
L2	TIME PERIOD SERVICE SINK, 22"x18" WALL-MOUNT SERVICE SINK, OVAL BASIN, 8" CENTER FAUCET HOLES, CAST IRON, RIM GUARD, ANSI A112.19.2					KOHLER K-6714; OR EQUAL IN AMERICAN STANDARD OR ZURN			PCO SPIGOT CONNECTION, RAISED HEAD THREADED BRASS PLUG						
	FAUCET, SINK WALL MOUNT, CHROME PLATED BRASS, 2-1/4" INTEGRAL SPOUT, TWO-HANDLE, 2" HANDLES, 8" CENTERS, THREADED SPOUT, NSF 61 COMPLIANT, ANSI A112.18.1M, 0.5 GPM MAX. FLOW RATE	-	-	1/2"	1/2"	KOHLER K-8905; OR EQUAL IN CHICAGO FAUCETS OR T&S BRASS			RD1 ROOF DRAIN, LARGE SUMP, CAST IRON BODY, 12" DIA. CAST IRON OR DUCTILE IRON DOME STRAINER, ANCHOR FLANGE AND CLAMP, ADJUSTABLE/INTEGRAL GRAVEL STOP, ASME A112.2.2	-	-	-	-	JOSAM SERIES 21500-3-22; MIFAB R1200-M; ZURN, ZC-100-G	
	SUPPLY AND STOPS, LOOSE KEY, CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISERS	-	-	-	-	MCGUIRE, H2165CCLK; T&S BRASS, B-1305; OR BRASSCRAFT, OCR1912A			OFD1 OVERFLOW ROOF DRAIN, LARGE SUMP, ADJUSTABLE INTERNAL STANDPIPE DAM, CAST IRON BODY, 12" DIA. CAST IRON OR DUCTILE IRON DOME STRAINER, ANCHOR FLANGE AND CLAMP, ADJUSTABLE/INTEGRAL GRAVEL STOP, ASME A112.2.2	-	-	-	-	JOSAM SERIES 21500-16-3-22; MIFAB R1200-W-M; ZURN ZC-100-G-W2	
	ADJUSTABLE P-TRAP WITH CLEANOUT OUT PLUG	-	-	-	-	KOHLER 6673; OR EQUAL IN T&S BRASS OR BRASSCRAFT			NFRH1 NON-FREEZE ROOF HYDRANT, BACKFLOW PROTECTED ASSE 1052 APPROVED, VARIABLE FLOW, AUTOMATIC DRAINING, FREEZELESS, SELF-CLOSING	-	-	1"	-	WOODFORD MODEL SHR-MS OR EQUAL	
	SERVICE SINK STRAINER, CHROME PLATED CAST BRASS	-	-	-	-	KOHLER 9142; OR EQUAL IN T&S BRASS OR BRASSCRAFT			IMB1 ICE MAKER CONNECTION BOX, 8"x8" RECESSED STAINLESS STEEL ENCLOSURE	-	-	3/4"	-	GUY GREY MODEL SS1B1; OR EQUAL	
	THERMOSTATIC MIXING VALVE, 0.25 GPM MINIMUM FLOW, INTEGRAL INLET CHECK VALVES AND STRAINER, SET TEMPERATURE TO 105°, ASSE 1070.	-	-	1/2"	1/2"	WATTS, LFUSG-B; LEONARD, 170-LF; OR EQUAL			AD1 AREA DRAIN, CAST IRON BODY, BOTTOM OUTLET, SEEPAGE PAN AND COMBINATION MEMBRANE FLASHING CLAMP, 30"x30" GALVANIZED CAST IRON HEAVY-DUTY LOOSE SOLID GRATE, SUSPENDED SEDIMENT BUCKET WITH STAINLESS STEEL MESH LINER, VANDAL PROOF SECURED TOP	8"	-	-	-	ZURN Z673; OR APPROVED EQUAL	
L3	TIME PERIOD SERVICE SINK, 17"x12" PEDESTAL MOUNTED SINK, OVAL BASIN, 4" CENTER FAUCET HOLES, VITREOUS CHINA, ANSI A112.19.2					KOHLER K-2286; OR EQUAL IN AMERICAN STANDARD OR ZURN									
	FAUCET, SINK MOUNT, CHROME PLATED BRASS, 4-1/2" INTEGRAL SPOUT, TWO-HANDLE, 2" HANDLES, 4" CENTERS, THREADED SPOUT, NSF 61 COMPLIANT, ANSI A112.18.1M, 1.2 GPM MAX. FLOW RATE	-	-	1/2"	1/2"	KOHLER K-13490-4; OR EQUAL IN CHICAGO FAUCETS OR T&S BRASS									
	SUPPLY AND STOPS, LOOSE KEY, CHROME PLATED BRASS VALVES AND CHROME PLATED COPPER RISERS	-	-	-	-	MCGUIRE, H2165CCLK; T&S BRASS, B-1305; OR BRASSCRAFT, OCR1912A									
	ADJUSTABLE P-TRAP WITH CLEANOUT OUT PLUG	-	-	-	-	KOHLER 6673; OR EQUAL IN T&S BRASS OR BRASSCRAFT									
	SERVICE SINK STRAINER, CHROME PLATED CAST BRASS	-	-	-	-	KOHLER 9142; OR EQUAL IN T&S BRASS OR BRASSCRAFT									
	THERMOSTATIC MIXING VALVE, 0.25 GPM MINIMUM FLOW, INTEGRAL INLET CHECK VALVES AND STRAINER, SET TEMPERATURE TO 105°, ASSE 1070.	-	-	1/2"	1/2"	WATTS, LFUSG-B; LEONARD, 170-LF; OR EQUAL									

- NOTES:**
- CONTRACTOR SHALL FURNISH AND INSTALL SUPPLIES, STOPS, TRAPS, TAILPIECES AND ALL APPURTENANCES NECESSARY FOR A COMPLETE INSTALLATION OF ALL FIXTURES.
 - COMPLY WITH THE PROVISIONS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND THE TEXAS ACCESSIBILITY STANDARD (TAS). PLUMBING CONTRACTOR SHALL PROVIDE PLUMBING FIXTURES WITH FLUSH VALVE HANDLES LOCATED ON THE WIDE SIDE OF EACH STALL OR ROOM.
 - FLOOR CLEANOUT ACCESS COVERS IN ALL FINISHED AREAS SHALL BE OF THE RECESSED TYPE TO ALLOW FOR INSERTION OF FINISHED FLOOR TREATMENT, TILE OR CARPET MARKER AS NECESSARY.
 - ABOVE THE FLOOR P-TRAPS ON LAVATORIES AND SINKS SHALL BE 1/2 GAUGE, CHROME PLATED BRASS, ACCEPTABLE MANUFACTURERS: MCGUIRE, T&S BRASS, OR BRASSCRAFT.
 - CONTRACTOR SHALL VERIFY FIXTURE SUPPLIES AND APPURTENANCES FOR EACH FIXTURE PRIOR TO BIDDING AND PURCHASING.
 - ALL FLOOR MOUNTED WATER CLOSURES SHALL HAVE 12" ROUGH-IN UNLESS OTHERWISE NOTED.
 - CONTRACTOR SHALL VERIFY PLUMBING FIXTURES PROVIDED COMPLY WITH HANDICAPPED ACCESSIBILITY STANDARDS INCLUDING HEIGHT AND CLEARANCE REQUIREMENTS.
 - ALL WATER CLOSET AND URINAL FLUSH VALVES SHALL INCLUDE CHROME PLATED CAST WALL FLANGE WITH SETSCREWS AND COVER TUBE.

DOMESTIC ELECTRIC WATER HEATER SCHEDULE

MARK	SERVICE	TYPE	STORAGE CAPACITY (GAL)	RECOVERY RATE (80° RISE) (GPH)	LEAVING WATER TEMPERATURE (°F)	ELECTRICAL CHARACTERISTICS				MANUFACTURER AND MODEL NUMBER	REMARKS	
						# ELEMENTS	KW	VOLTS	PHASE			HZ
WH1	DOMESTIC HOT WATER	TANK TYPE, ELECTRIC	120	18	140	2	4	208	1	60	A.O. SMITH, DEN-120	①

① ADJUST STORAGE WATER TEMPERATURE IN ACCORDANCE WITH LOCAL ENERGY CODE REQUIREMENTS.

THERMOSTATIC MIXING VALVE SCHEDULE

MARK	SERVICE	TYPE	FLOWRATE CAPACITY		PRESSURE DROP (PSIG)	INLET HOT WATER TEMPERATURE (°F)	INLET COLD WATER TEMPERATURE (°F)	LEAVING WATER TEMPERATURE (°F)	MANUFACTURER AND MODEL NUMBER	REMARKS
			HIGH (GPM)	LOW (GPM)						
TSMV1	TEMPERED HOT WATER	CENTRAL CIRCULATION	27	2	15	140	60	110	ARMSTRONG, DRV	

PUMP SCHEDULE

MARK	SERVICE	TYPE	FLOWRATE (GPM)	TOTAL DYNAMIC HEAD (FEET)	SPEED (RPM)	EFFIC. (%)	ELECTRICAL CHARACTERISTICS				MANUFACTURER AND MODEL NUMBER	REMARKS
							HP	VOLTS	PHASE	HZ		
CP1	DOMESTIC HOT WATER CIRCULATION	INLINE, CENTRIFUGAL	2	12	1,750	65	1/25	115	1	60	GRUNDFOS, MODEL UP	① ② ④
SP1	ELEVATOR SUMP PUMP	SUMP AND EFFLUENT PUMP	50	15	1,750	65	1/2	115	1	60	LITTLE GIANT MODEL 10EN-CBA-SFS	③ ④

- ① PROVIDE 7-DAY TIME CLOCK FOR OPERATION OF CIRCULATION PUMP (SET TO OPERATE BETWEEN 5:00 AM TO 9:00 PM, ADJUSTABLE).
- ② PUMPS SHALL BE RATED FOR CONTINUOUS OPERATION AT WATER TEMPERATURES OF WATER SYSTEM
- ③ PROVIDE PUMP WITH AUTOMATIC DISCHARGE CONTROLLED BY INTERNAL PRESSURE SWITCH.
- ④ OR APPROVED EQUAL

DATE	APPROVED

KOMATSU ARCHITECTURE

ISSUED FOR CONSTRUCTION

THE RECORD COPY OF THIS DRAWING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC. 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6843 ON NOV 23, 2021 ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.

POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

PLUMBING SCHEDULES

44.03.11.2022.19004

SOLARE ENGINEERING UNLIMITED, INC.
1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102
Tel 817-529-6800 Fax 817-529-0649 www.solare-eng.com

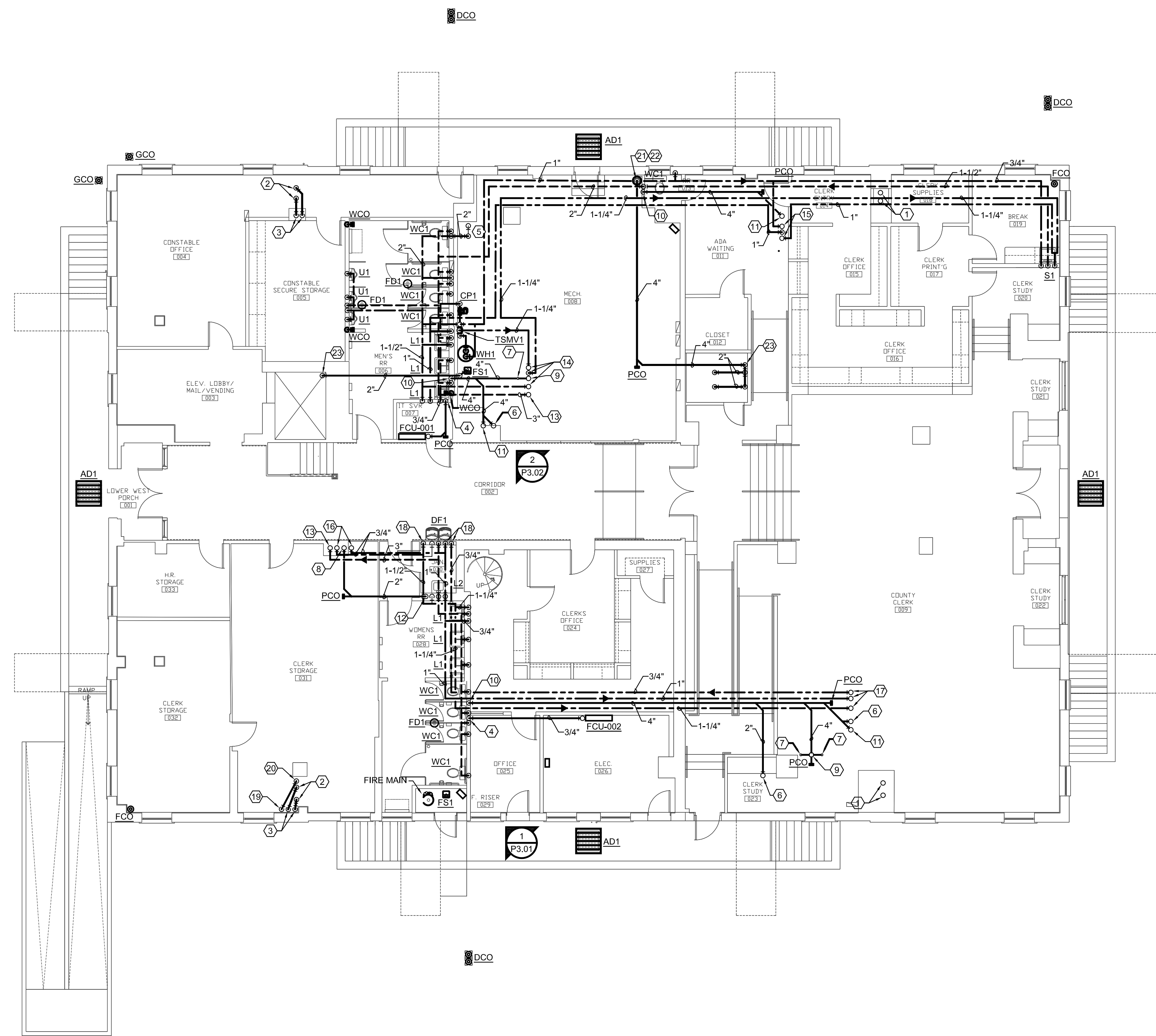
SHEET SIZE	22 x 34
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KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
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SHEET OF SEQ #	

P0.02

SHEET SIZE = ANSI D 22x34

XREFS:

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XREFS:
Polk County Courthouse PLUMBING 19004 - P2.01.dwg - Layout - 03/11/2022 10:25:12 dmitriy



- ### GENERAL NOTES
- ALL LATERAL RUN PIPING LARGER THAN NPS 2-1/2" SHALL BE CONCEALED FROM VIEW AND ROUTED INSIDE OVERHEAD FURR DOWN (WHERE PROVIDED) AND HELD TIGHTLY UNDER STRUCTURAL BEAMS. ALL VERTICAL RUN PIPING TO BE FULLY CONCEALED FROM VIEW AND BE ROUTED INSIDE OF FRAMED OR FURRED WALL CAVITY (FLOOR TO DECK). REFER TO STRUCTURAL FOR INFORMATION REGARDING CORE DRILLING THROUGH EXISTING BEAMS.
 - REGARDING ALL 'DCO' 'GCO' AND 'AD' FIXTURES; CONTRACTOR TO COORDINATE ALL PIPE ROUTING WITH UTILITY PLAN. CONTRACTOR TO SUBMIT DIMENSIONED DEVICE PLAN TO ARCHITECT AND FIELD VERIFY AS REQUIRED TO ENSURE FIXTURE PLACEMENT IS APPROPRIATE.
 - REGARDING ANY/ALL SUB-FLOOR/SUB-GRADE PLUMBING LINES; CONTRACTOR IS TO REFER TO STRUCTURAL FOR INFORMATION ON CORE DRILLING THROUGH EXISTING BASEMENT WALL OR GRADE BEAMS.

- ### NOTES BY SYMBOL "#"
- 6" ROOF AND OVERFLOW DRAIN PIPING FROM ABOVE, DOWN TO FLOOR BELOW.
 - 6" ROOF AND OVERFLOW DRAIN PIPING FROM ABOVE.
 - 6" ROOF AND OVERFLOW DRAIN PIPING DOWN TO UNDER GRADE.
 - 3/4" CONDENSATE FROM FCU TO DISCHARGE (VIA BRANCH TAILPIECE) INTO SINK. REFER TO DETAIL 4/P4.02.
 - DOMESTIC WATER ENTRANCE. REFER TO DETAIL 3/P4.01.
 - 2" SANITARY WASTE UP TO LAV/SINK.
 - 4" SANITARY WASTE UP TO WC1.
 - 2" SANITARY WASTE FROM ABOVE..
 - 2" VENT UP TO FLOOR ABOVE.
 - 4" SANITARY WASTE DOWN.
 - 4" SANITARY WASTE FROM ABOVE.
 - 2" SANITARY WASTE DOWN.
 - 3" VENT UP TO FLOOR ABOVE.
 - 1-1/4" DOMESTIC COLD WATER AND 1-1/4" DOMESTIC HOT WATER UP TO FLOOR ABOVE. 1-1/4" DOMESTIC HOT WATER DOWN TO FLOOR BELOW.
 - 1" DOMESTIC COLD WATER AND 1" DOMESTIC HOT WATER UP TO FLOOR ABOVE. 1" DOMESTIC HOT WATER DOWN FROM ABOVE.
 - 3/4" DOMESTIC COLD WATER AND 3/4" DOMESTIC HOT WATER UP TO FLOOR ABOVE.
 - 1" DOMESTIC COLD WATER AND 1" DOMESTIC HOT WATER UP TO FLOOR ABOVE. 3/4" DOMESTIC HOT WATER RETURN DOWN FROM ABOVE.
 - 1-1/2" DOMESTIC COLD WATER AND 1" DOMESTIC HOT WATER FROM BELOW. 3/4" DOMESTIC HOT WATER RETURN DOWN TO UNDER GRADE.
 - 4" NATURAL GAS FROM BELOW.
 - 4" NATURAL GAS UP TO ROOF.
 - 4" FORCED MAIN PIPING DOWN TO STORM DRAIN AIR GAP FITTING. AIR GAP SHALL BE AT LEAST 8-INCHES.
 - 4-INCH STORM DRAIN PIPING DOWN TO BELOW GRADE.
 - PUMP DISCHARGE PIPING UP TO ABOVE CEILING.

1 PLUMBING BASEMENT PLAN
1/8" = 1' - 0"

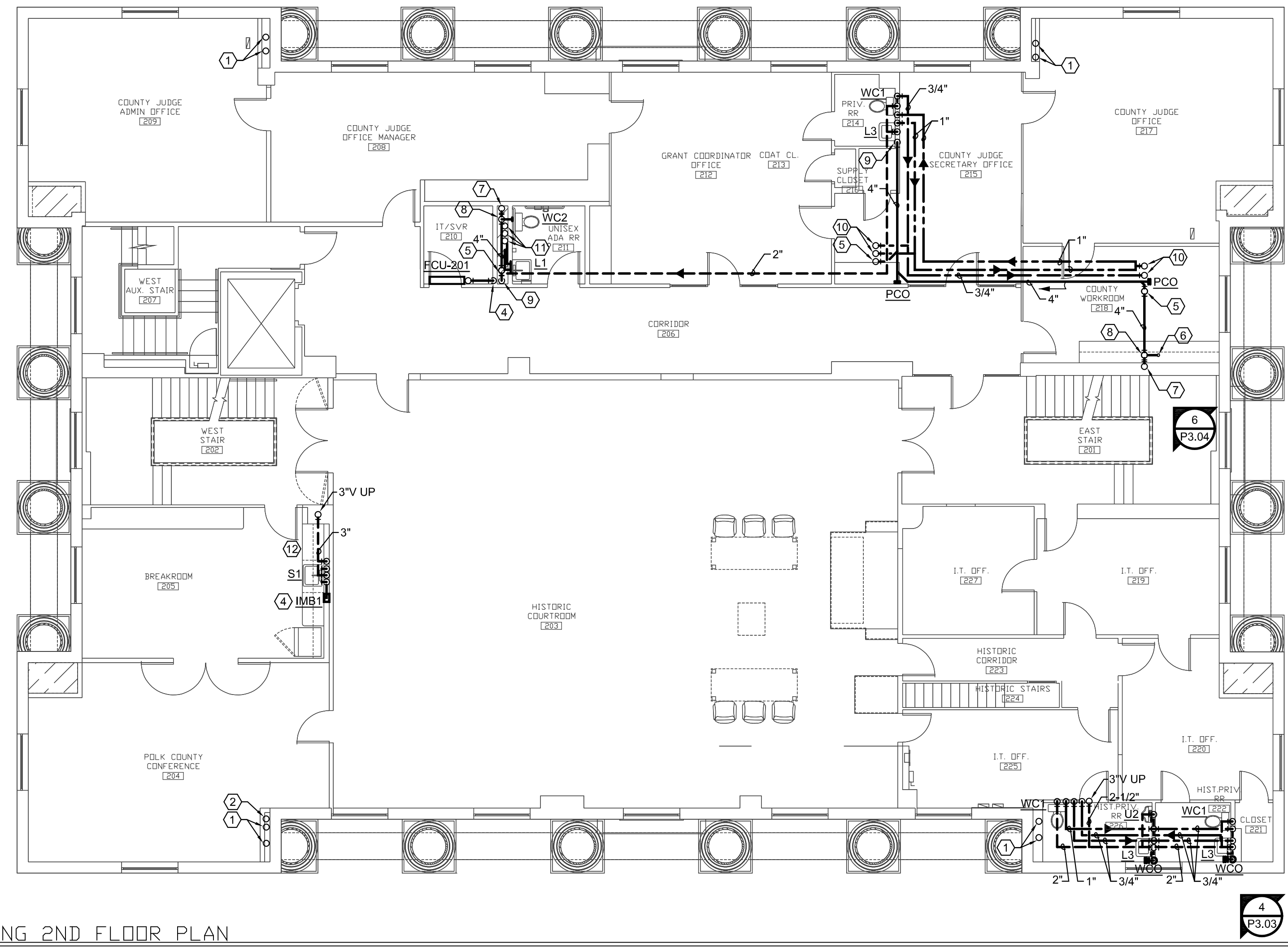
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8' 0 8' 16'
1/8"=1'-0"

POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION		101 W. Church Street Livingston, TX 77351		PLUMBING BASEMENT PLAN	
SHEET SIZE		22 x 34		SCALE:	
KAI JOB NUMBER:		2017.171B		SPECIFICATIONS NO.:	
DATE:		MARCH 11, 2022		SHEET OF SEQ #	
P2.01				REVISIONS	
				DATE	
				APPROVED	

SHEET SIZE = ANSI D 22x34
XREFS:
Polk County Courthouse PLUMBING 19004 - P2.03.dwg - Layout1 03/11/2022 10:25:21 bimbley



1 PLUMBING 2ND FLOOR PLAN
1/8" = 1' - 0"

GENERAL NOTES

1. ALL LATERAL RUN PIPING LARGER THAN NPS 2-1/2" SHALL BE CONCEALED FROM VIEW AND ROUTED INSIDE OVERHEAD FURR DOWN (WHERE PROVIDED) AND HELD TIGHTLY UNDER STRUCTURAL BEAMS. ALL VERTICAL RUN PIPING TO BE FULLY CONCEALED FROM VIEW AND BE ROUTED INSIDE OF FRAMED OR FURRED WALL CAVITY (FLOOR TO DECK). REFER TO STRUCTURAL FOR INFORMATION REGARDING CORE DRILLING THROUGH EXISTING BEAMS.

NOTES BY SYMBOL "Ⓧ"

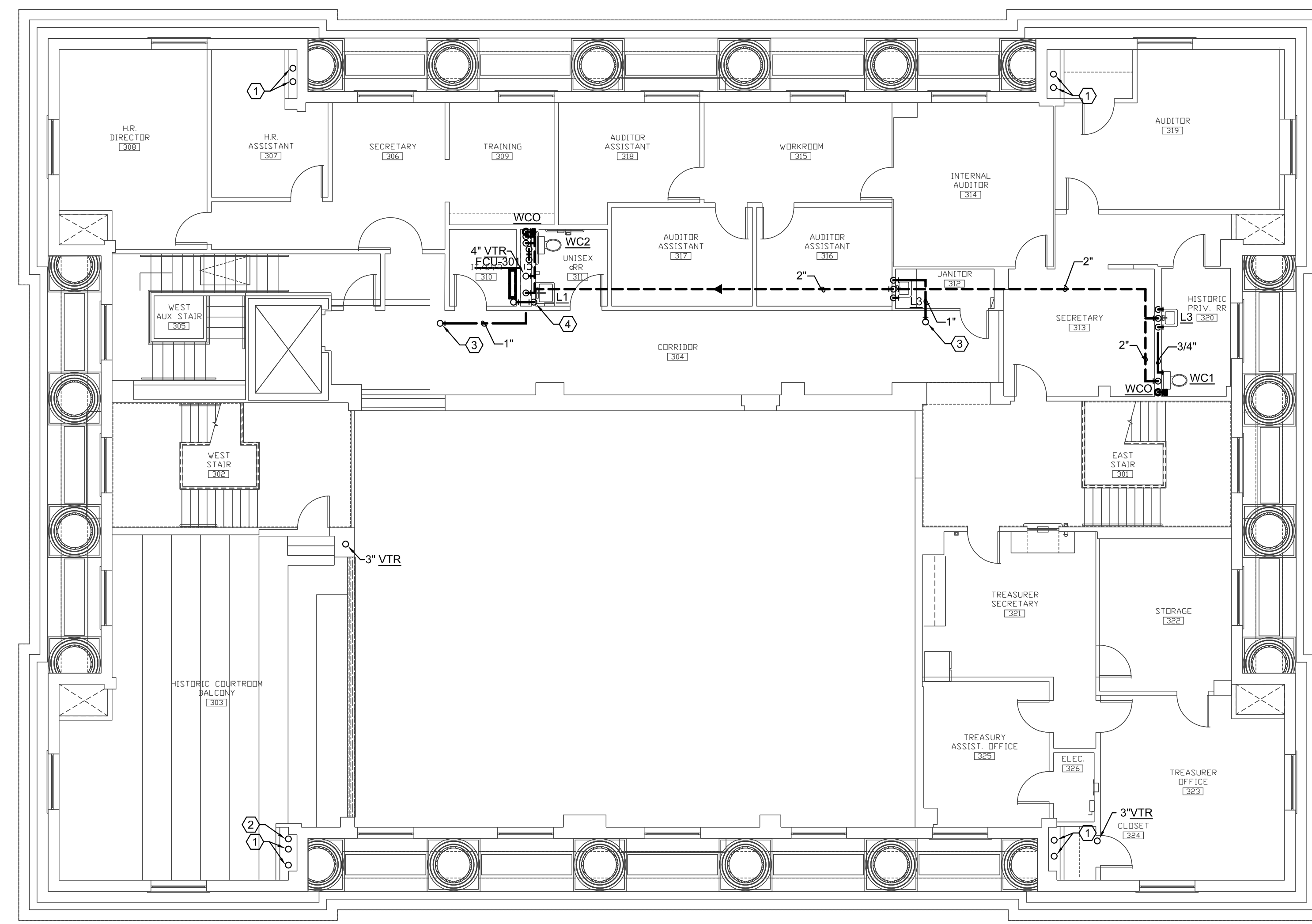
- ① 6" STORM AND OVERFLOW DRAIN PIPING FROM ABOVE, DOWN TO FLOOR BELOW.
- ② 4" NATURAL GAS PIPING FROM BELOW, UP TO ROOF.
- ③ 3/4" CONDENSATE FROM FCU TO DISCHARGE (VIA BRANCH TAILPIECE) INTO SINK. REFER TO DETAIL 4/P4.02.
- ④ REFER TO DETAIL 5/P4.02 FOR PLUMBING CONNECTIONS TO ICE MACHINE.
- ⑤ 2" SANITARY WASTE UP TO LAV/SINK.
- ⑥ 4" SANITARY WASTE UP TO WC1.
- ⑦ 4" SANITARY WASTE UP TO WCO.
- ⑧ 2" VENT UP TO FLOOR ABOVE.
- ⑨ 4" SANITARY WASTE DOWN TO FLOOR BELOW.
- ⑩ 1" DOMESTIC COLD AND DOMESTIC HOT WATER UP TO FLOOR ABOVE.
- ⑪ 1" DOMESTIC COLD WATER AND 1-1/4" DOMESTIC HOT WATER UP TO FLOOR ABOVE. 1-1/4" DOMESTIC HOT WATER DOWN TO FLOOR BELOW.
- ⑫ ROUTE PIPING SERVING PLUMBING FIXTURES IN WALL CHASE FOR COMPLETE CONCEALMENT OF ALL PIPING.

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<p>KOMATSU ARCHITECTURE</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">ISSUED FOR CONSTRUCTION</p>	<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>APPROVED</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION	APPROVED																
NO.	DATE	DESCRIPTION	APPROVED																		
<p>POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION</p> <p>101 W. Church Street Livingston, TX 77351</p> <p>PLUMBING 2ND FLOOR PLAN</p>																					
<p>SHEET SIZE 22 x 34 SCALE: KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #</p> <p style="font-size: 2em; font-weight: bold;">P2.03</p>																					

SHEET SIZE = ANSI D 22x34
XREFS:
Polk County Courthouse PLUMBING 19004 - P2.04.dwg - Layout1 03/15/22 10:25:25 timothy



1 PLUMBING 3RD FLOOR PLAN
1/8" = 1' - 0"

GENERAL NOTES

- ALL LATERAL RUN PIPING LARGER THAN NPS 2-1/2" SHALL BE CONCEALED FROM VIEW AND ROUTED INSIDE OVERHEAD FURR DOWN (WHERE PROVIDED) AND HELD TIGHTLY UNDER STRUCTURAL BEAMS. ALL VERTICAL RUN PIPING TO BE FULLY CONCEALED FROM VIEW AND BE ROUTED INSIDE OF FRAMED OR FURRED WALL CAVITY (FLOOR TO DECK). REFER TO STRUCTURAL FOR INFORMATION REGARDING CORE DRILLING THROUGH EXISTING BEAMS.

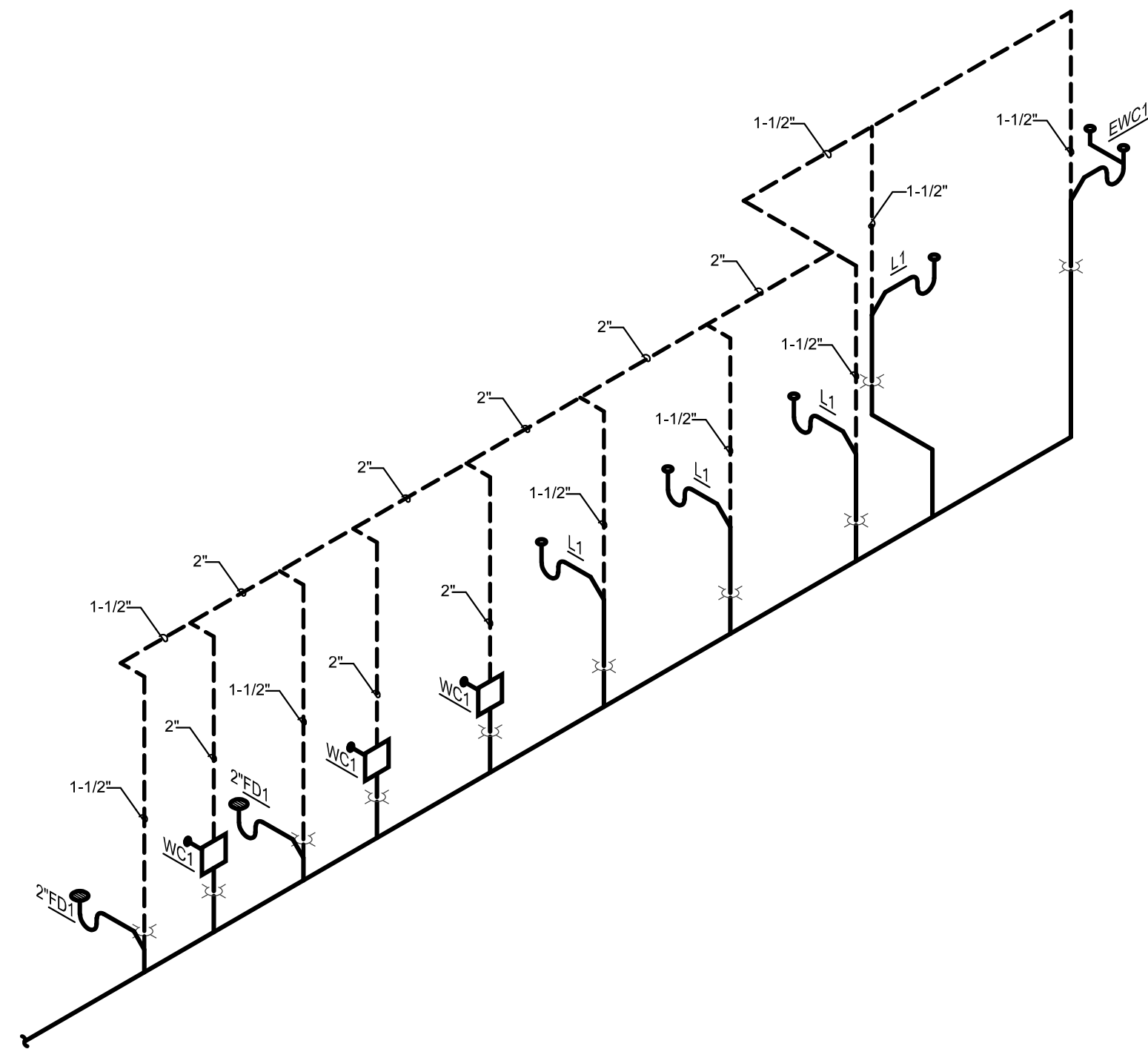
NOTES BY SYMBOL "#"

- 6" ROOF DRAIN AND OVERFLOW DRAIN PIPING FROM ABOVE, DOWN TO FLOOR BELOW.
- 3" NATURAL GAS PIPING FROM BELOW, UP TO ROOF.
- 1" DOMESTIC COLD WATER PIPING UP TO NFRH1.
- 3/4" CONDENSATE FROM FCU TO DISCHARGE (VIA BRANCH TAILPIECE) INTO SINK. REFER TO DETAIL 4/P.02.

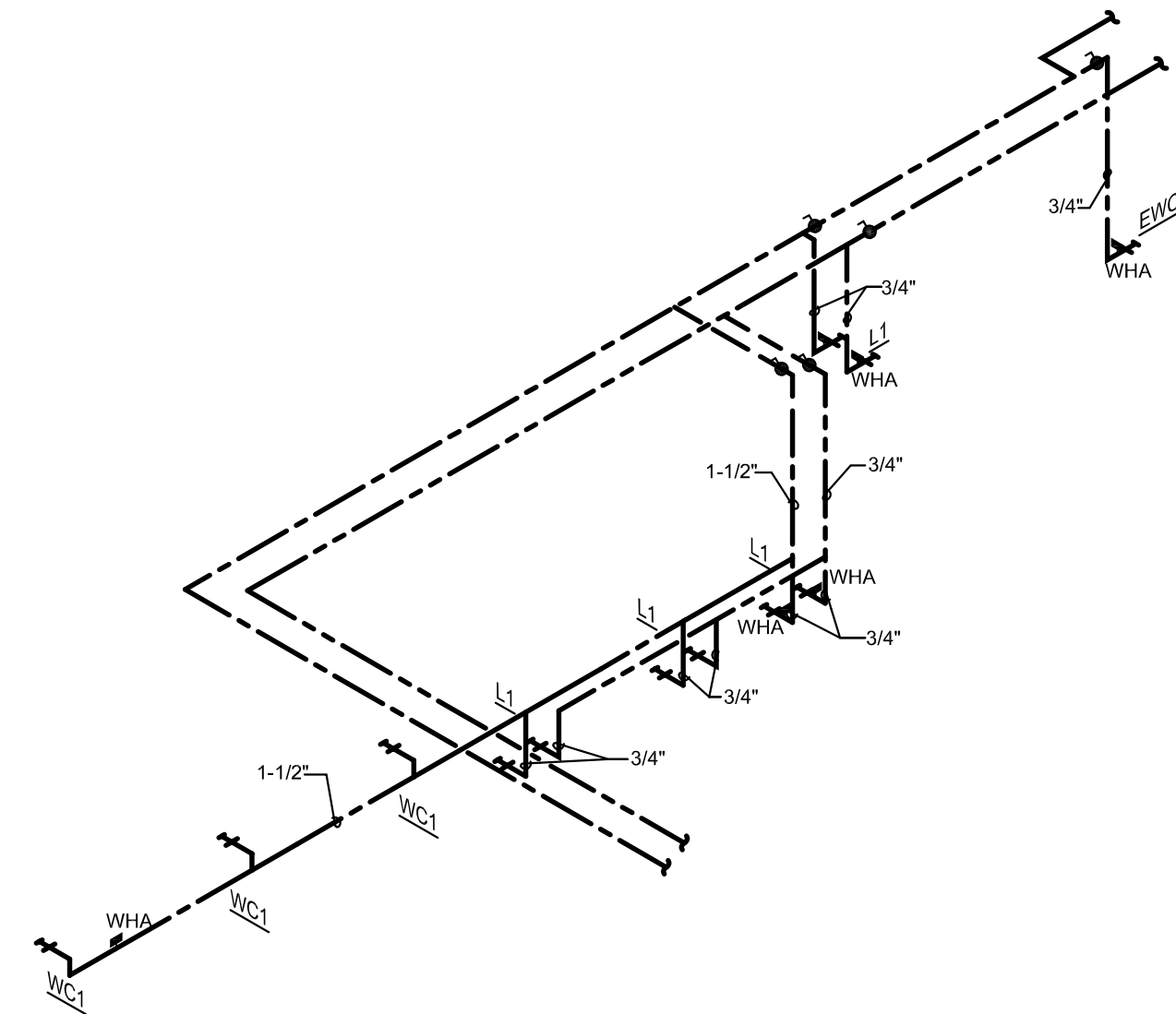
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<p>POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION</p>	<p>101 W. Church Street Livingston, TX 77351</p>								
<p>PLUMBING 3RD FLOOR PLAN</p>									
<p>SHEET SIZE: 22 x 34</p> <p>SCALE: 1/8" = 1'-0"</p> <p>KAI JOB NUMBER: 2017.171B</p> <p>SPECIFICATIONS NO.: N/A</p> <p>DATE: MARCH 11, 2022</p> <p>SHEET OF SEQ #</p>	<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> <th>APPROVED</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION	APPROVED				
NO.	DATE	DESCRIPTION	APPROVED						
<p>P2.04</p>									



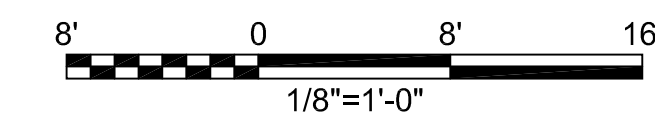
SANITARY WASTE AND VENT



DOMESTIC WATER

1 PLUMBING ISOMETRIC RISER DIAGRAM
 P3.01 NO SCALE

JOHN S. OKELLEY
 31583
 REGISTERED PROFESSIONAL ENGINEER
 03/11/2022
 44.03.11.2022.19004
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POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION
 101 W. Church Street
 Livingston, TX 77351
 PLUMBING RISER DIAGRAMS

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.1718
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	P3.01

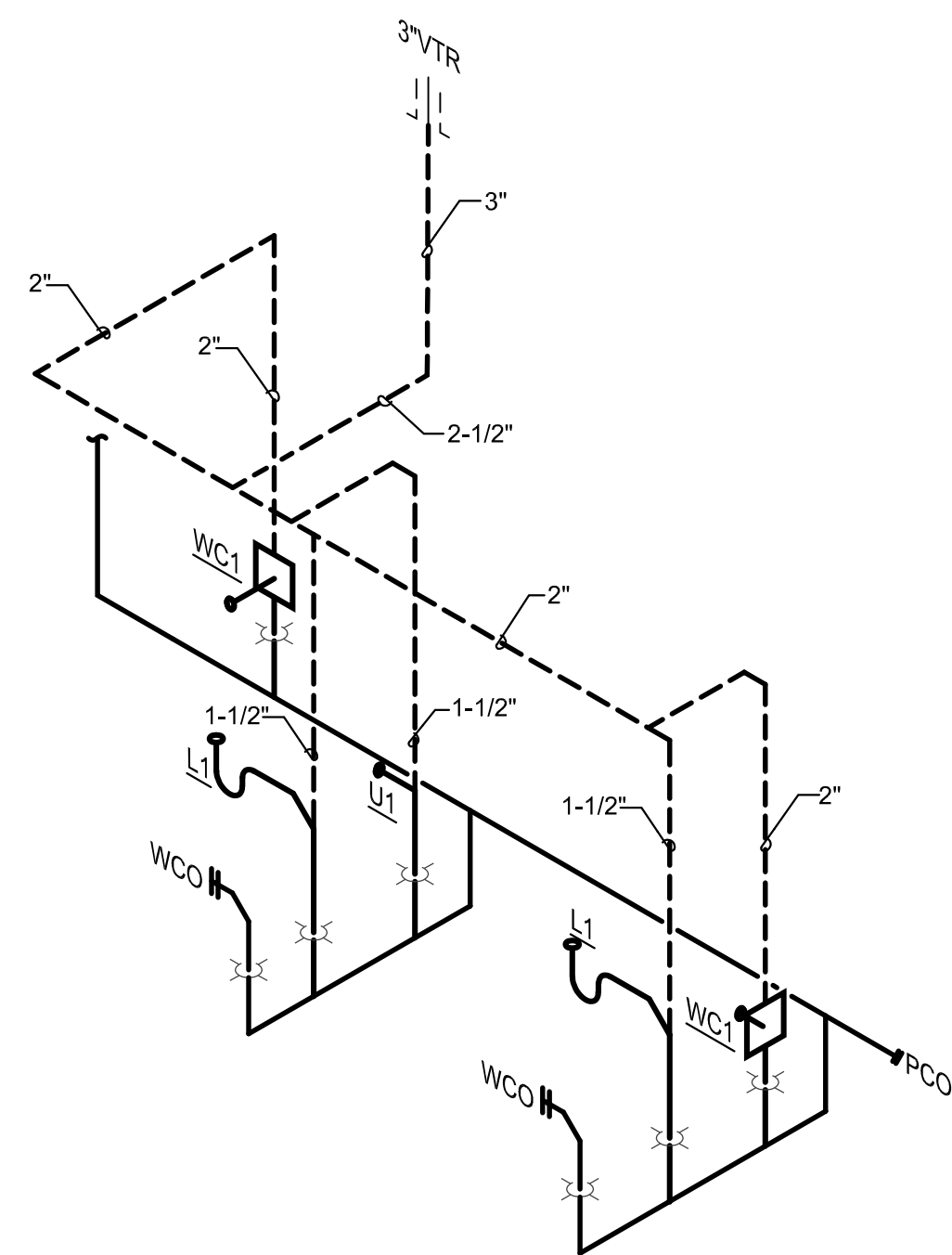
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SYMBOL	DESCRIPTION	DATE	APPROVED

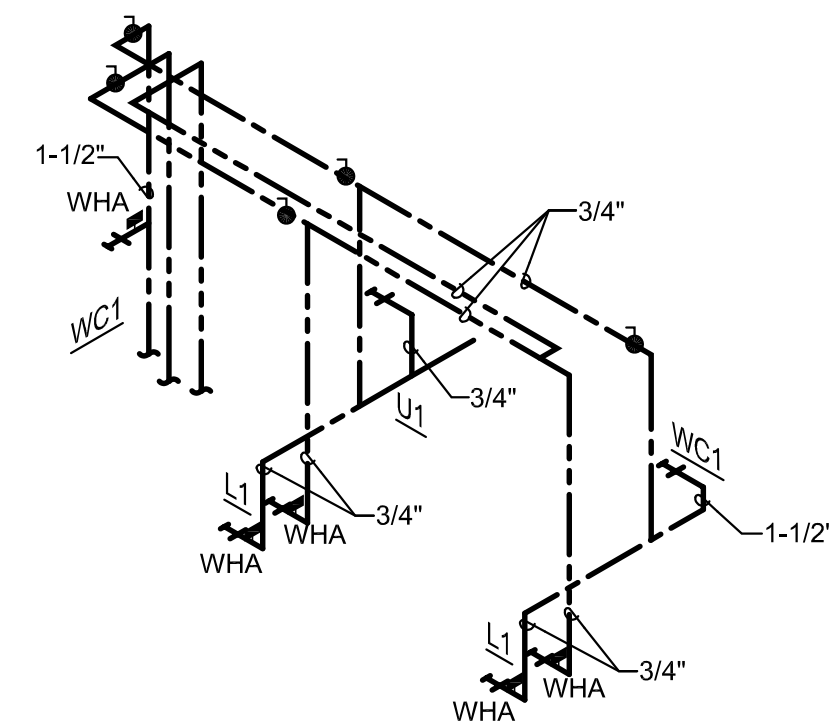
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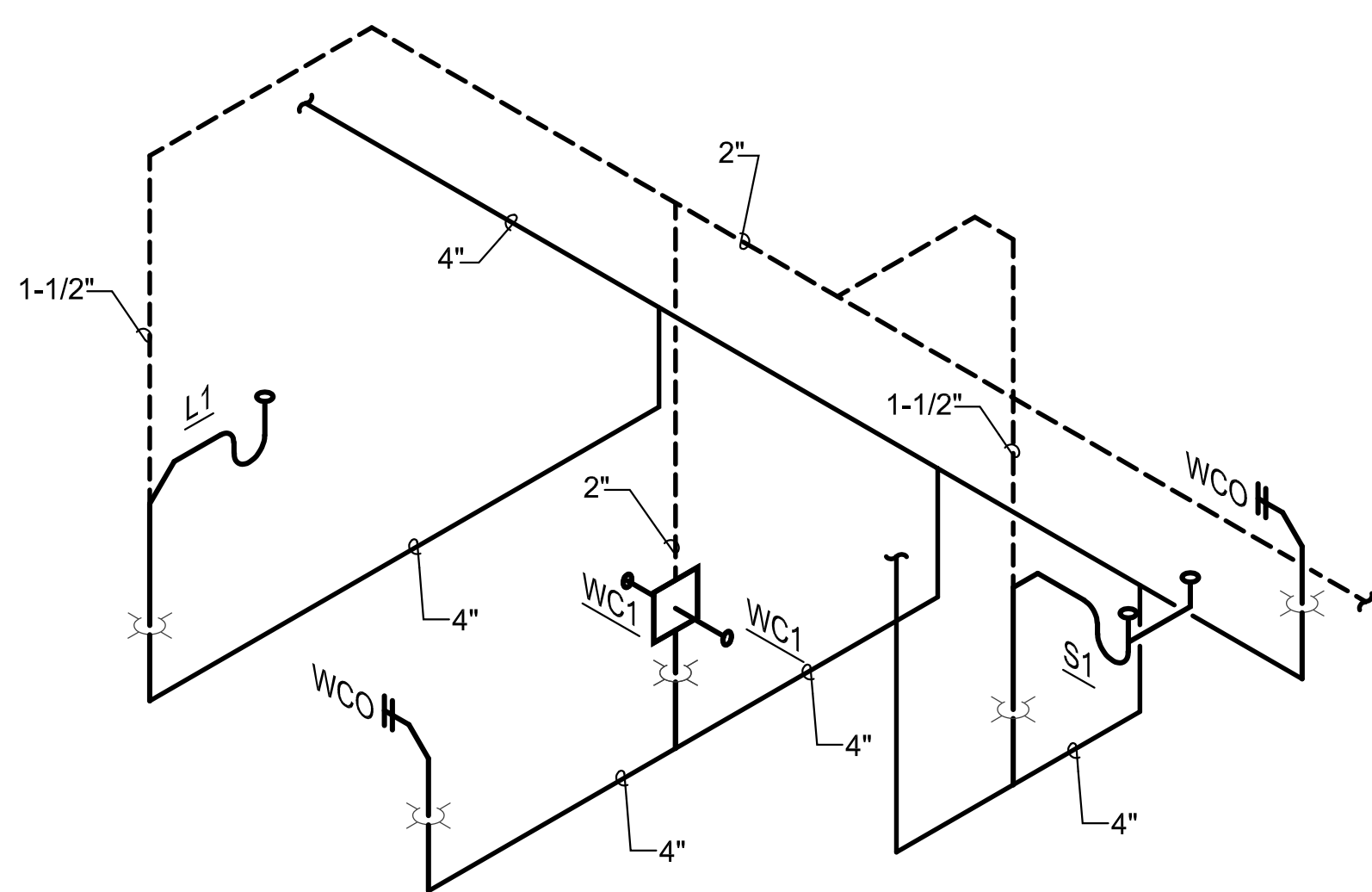


SANITARY WASTE AND VENT

3 PLUMBING ISOMETRIC RISER DIAGRAM
P3.03 NO SCALE

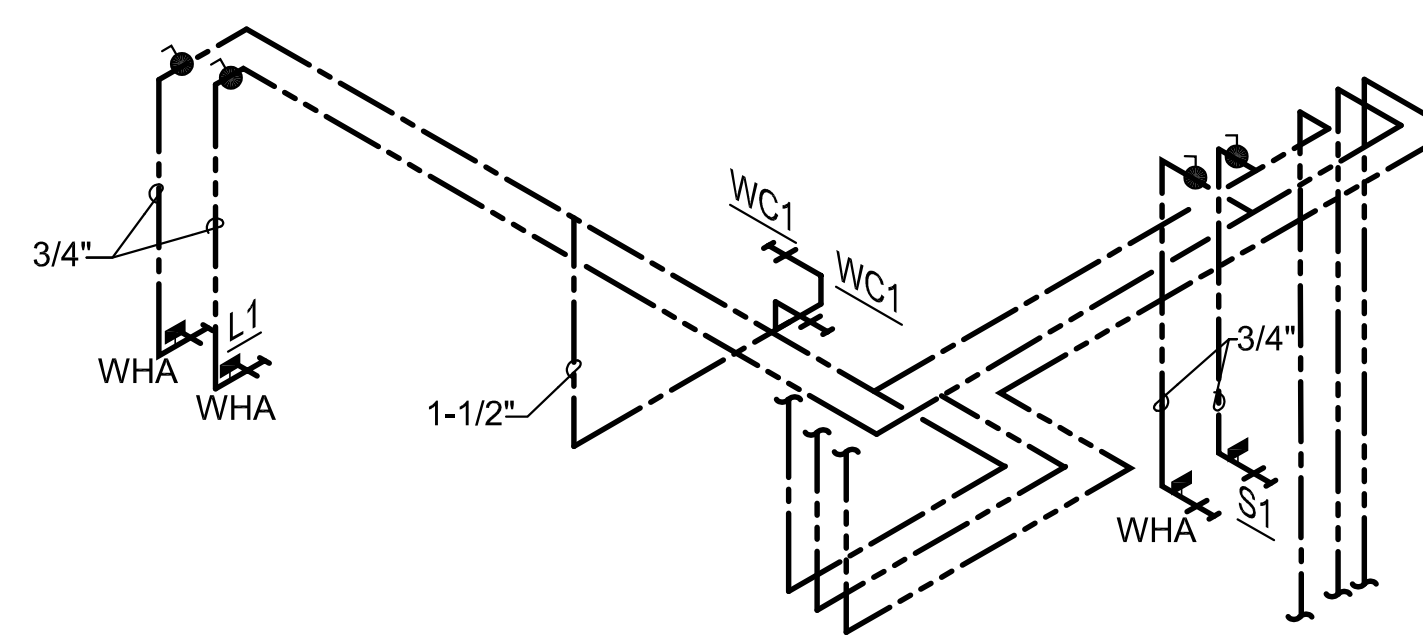


DOMESTIC WATER



SANITARY WASTE AND VENT

4 PLUMBING ISOMETRIC RISER DIAGRAM
P3.03 NO SCALE



DOMESTIC WATER

NO.	DATE	DESCRIPTION	APPROVED

KOMATSU
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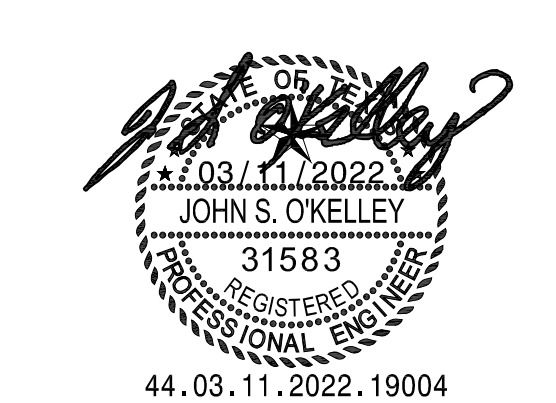
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POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

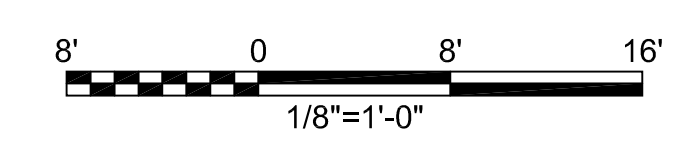
PLUMBING RISER DIAGRAMS



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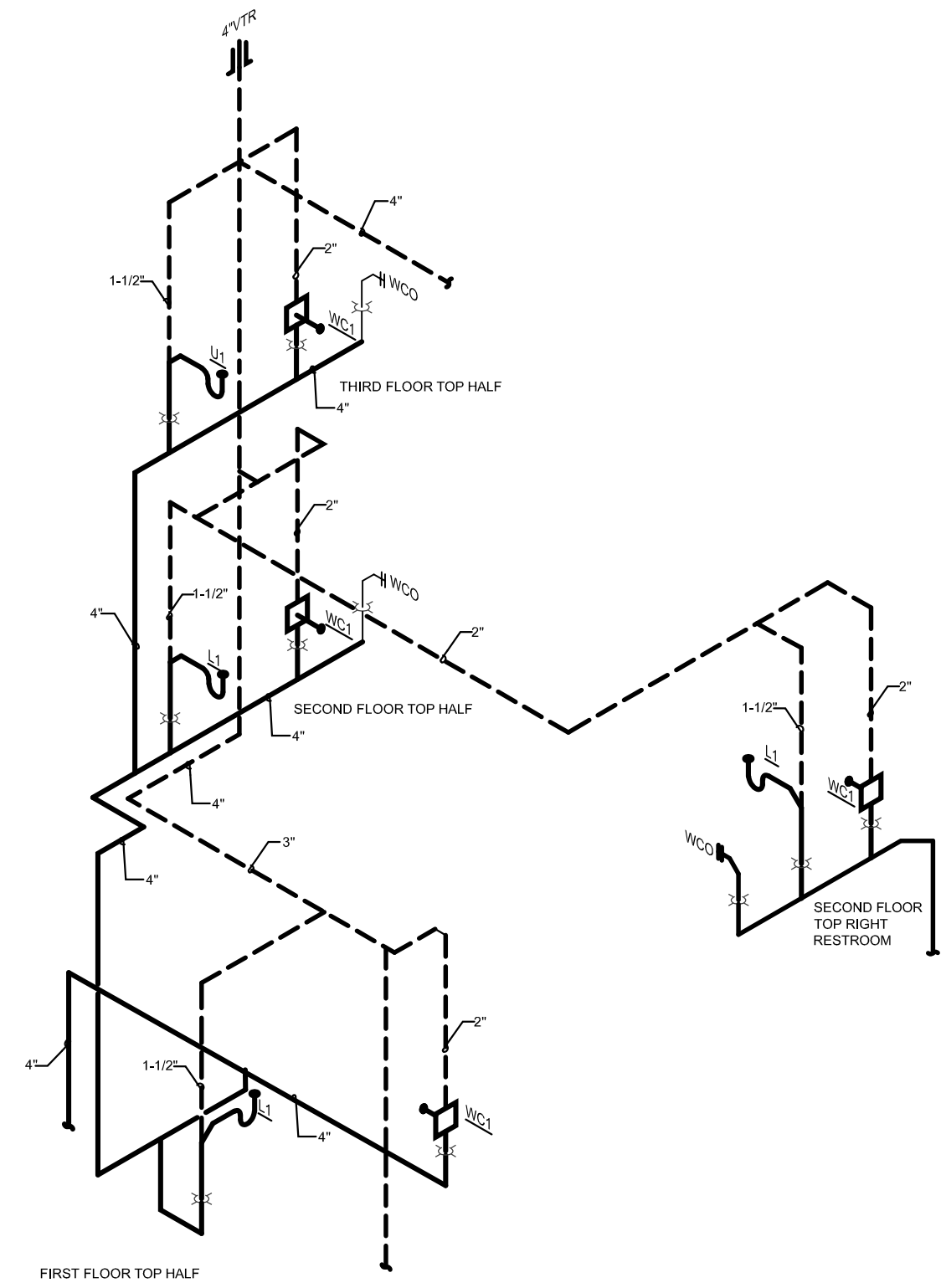


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KAI JOB NUMBER	2017.171B
SPECIFICATIONS NO.	N/A
DATE	MARCH 11, 2022
SHEET OF SEQ #	

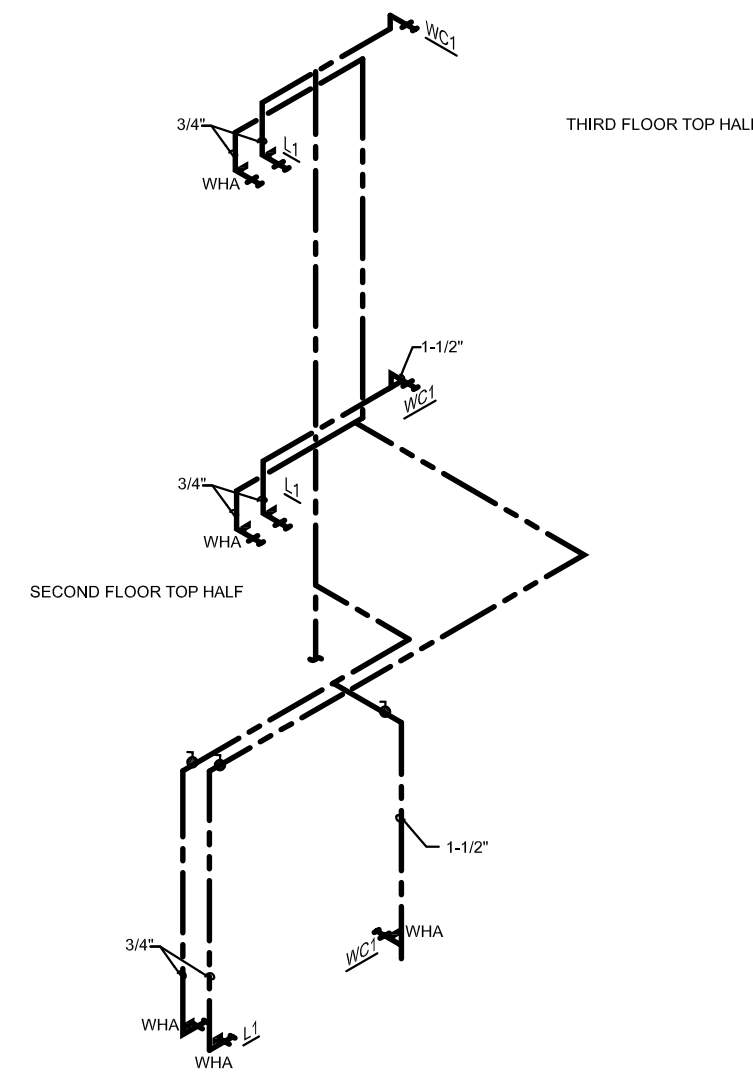
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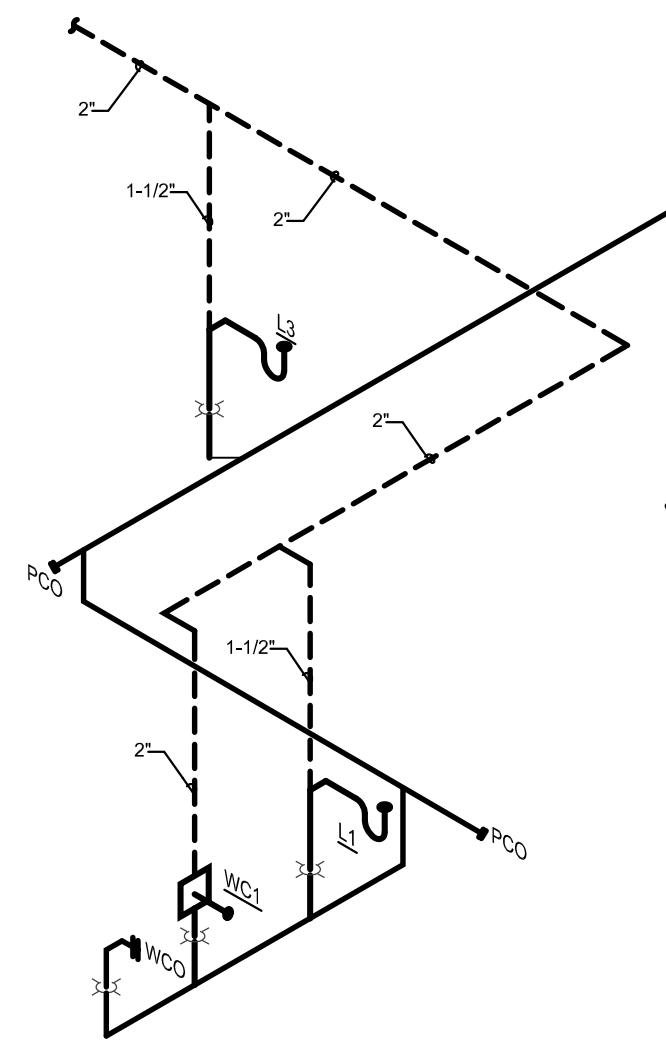


SANITARY WASTE AND VENT

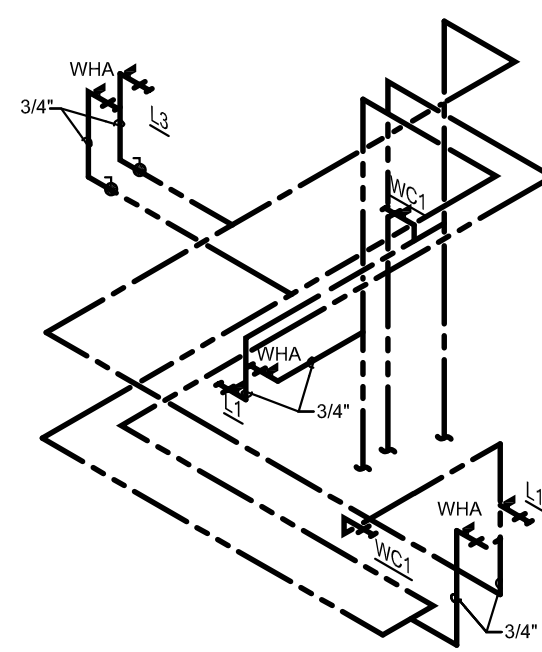


DOMESTIC WATER

5 PLUMBING ISOMETRIC RISER DIAGRAM
P3.04 NO SCALE



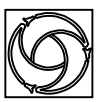
SANITARY WASTE AND VENT



DOMESTIC WATER

6 PLUMBING ISOMETRIC RISER DIAGRAM
P3.04 NO SCALE

KOMATSU
ARCHITECTURE



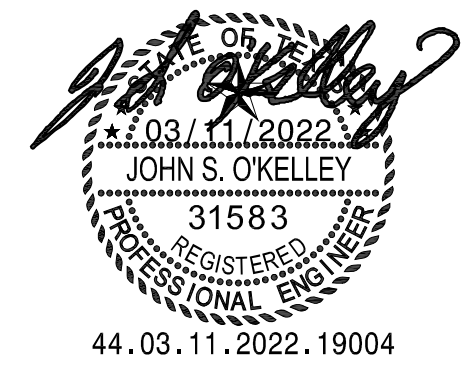
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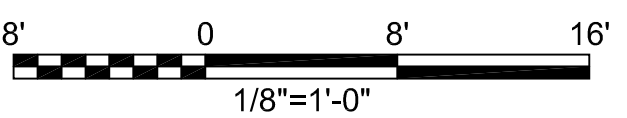
POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

PLUMBING RISER DIAGRAMS



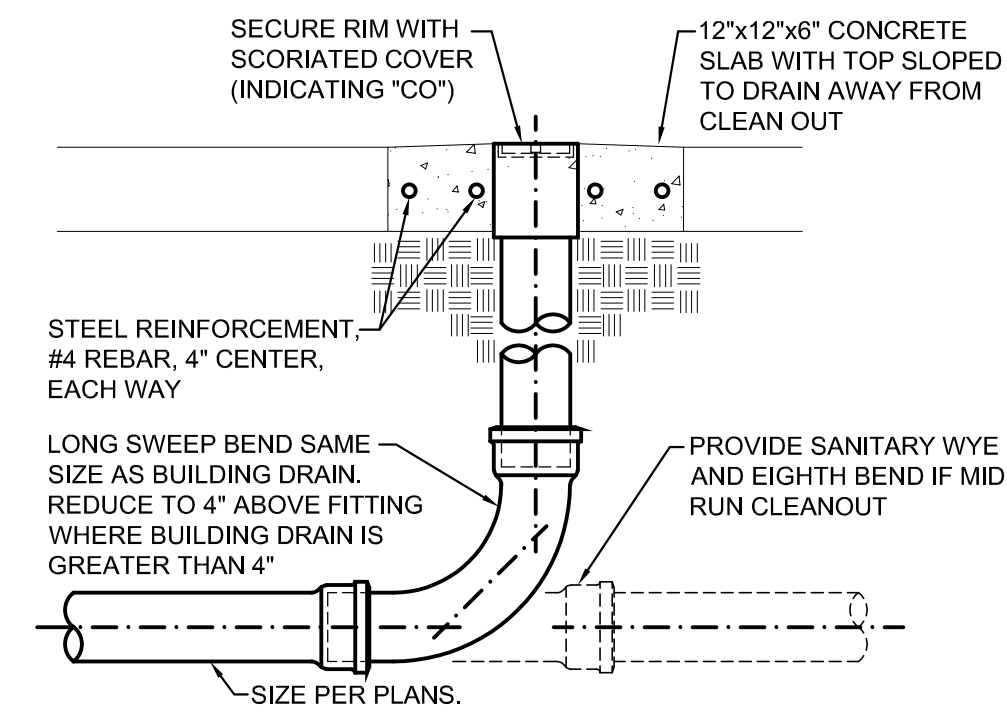
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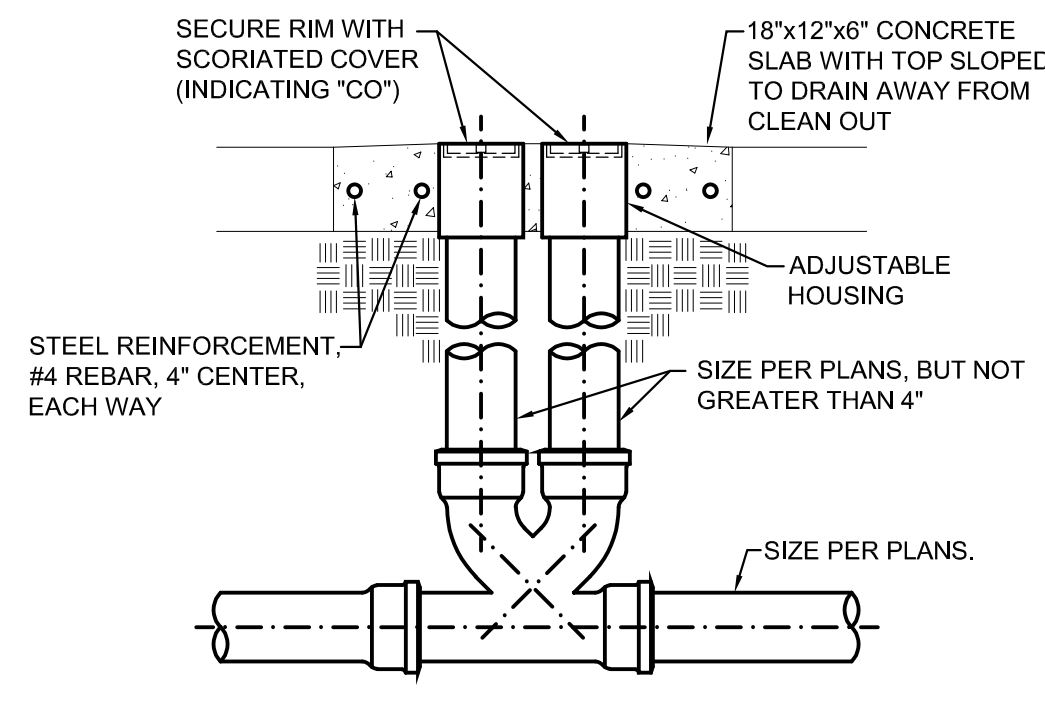
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SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	

P3.04

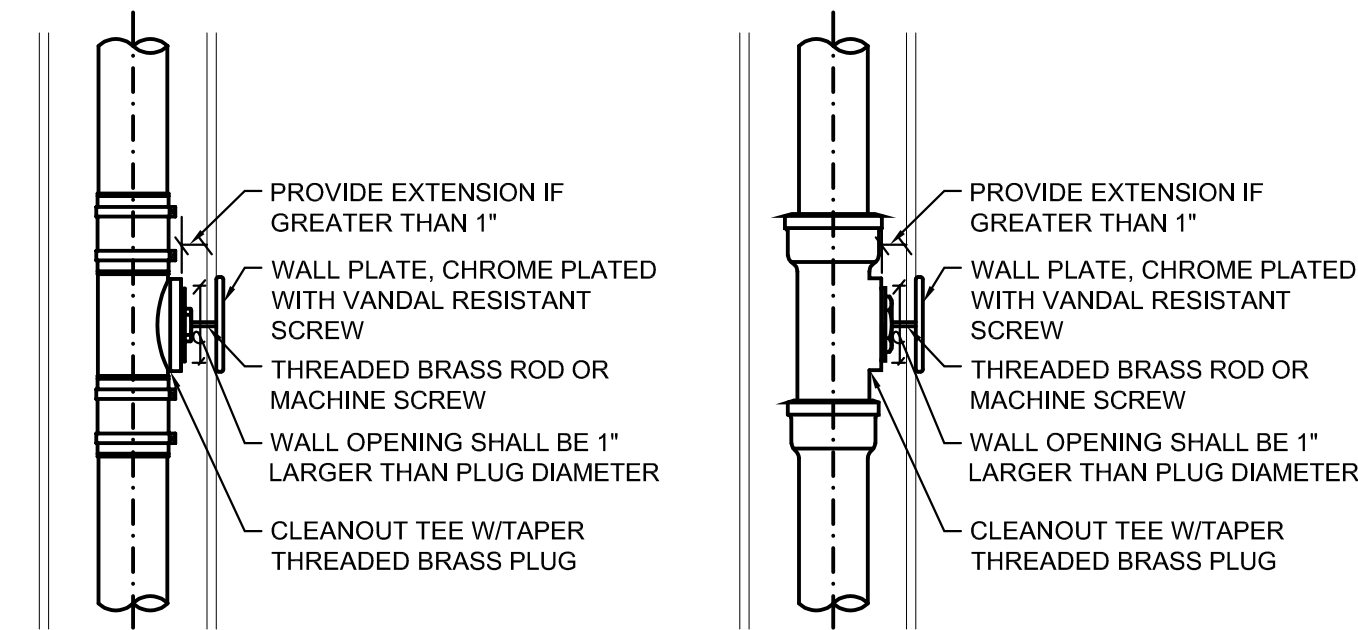
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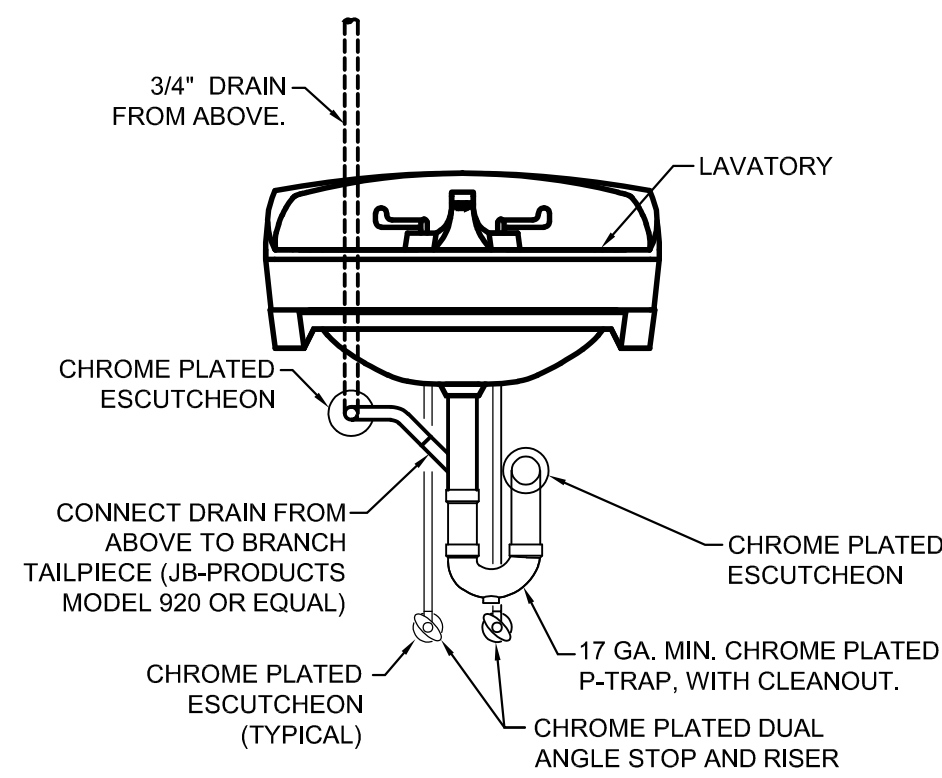
1 FLOOR/GRADE CLEANOUT DETAIL
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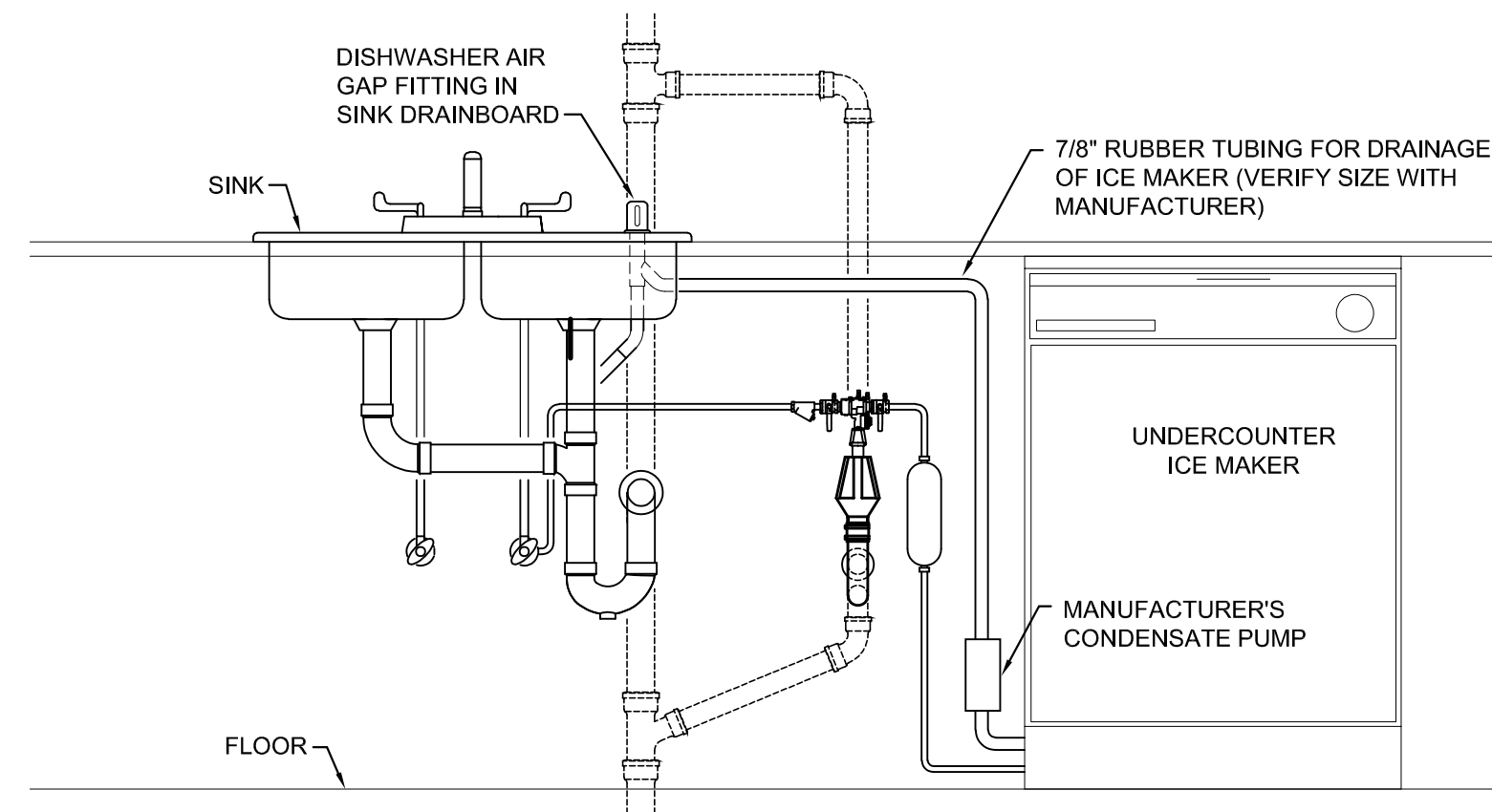
2 TWO-WAY GRADE CLEANOUT DETAIL
SCALE: NO SCALE



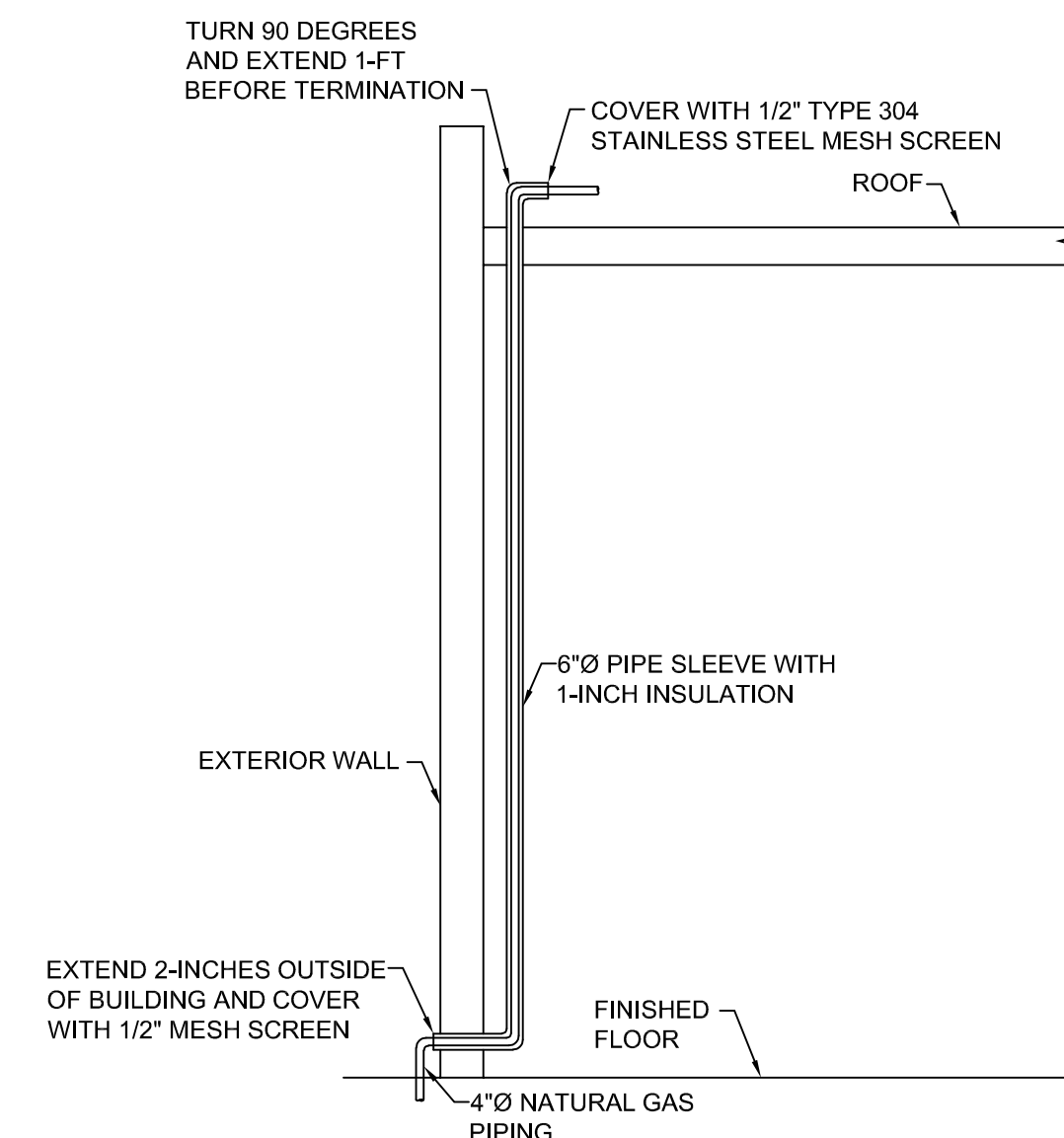
3 WALL CLEANOUT DETAIL
SCALE: NO SCALE



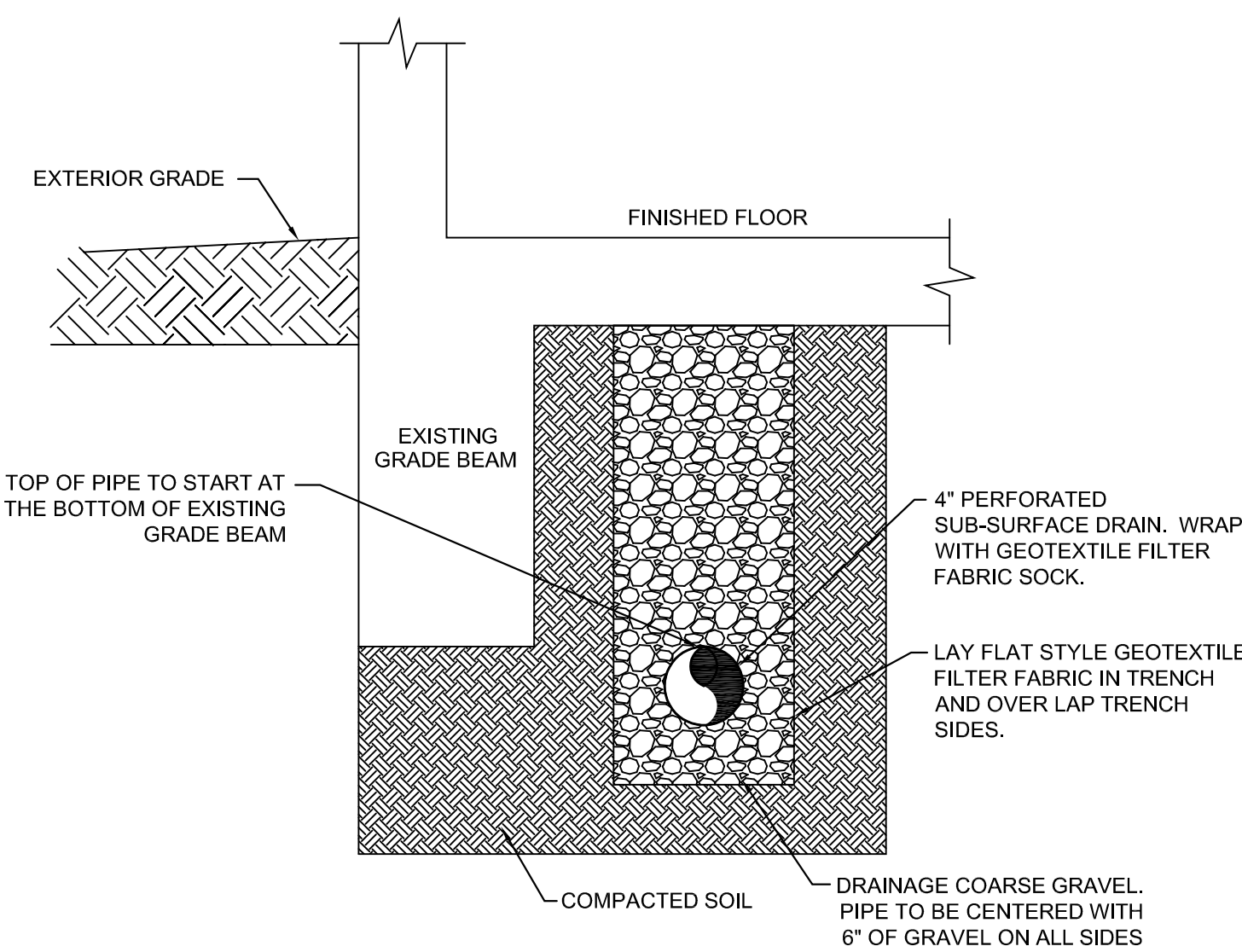
4 BRANCH TAILPIECE CONNECTION DETAIL
SCALE: NO SCALE



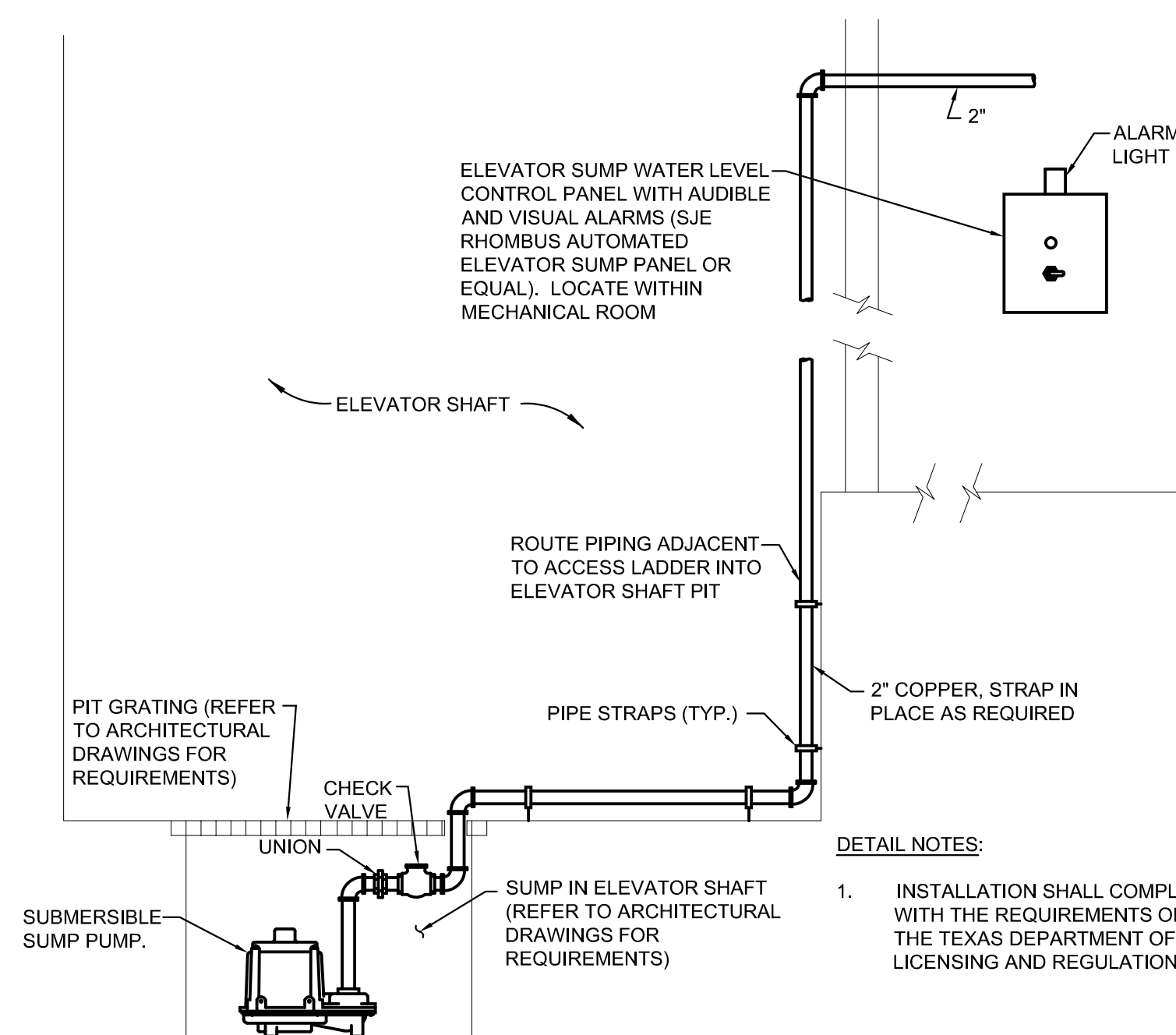
5 UNDERCOUNTER ICE MAKER DETAIL
SCALE: NO SCALE



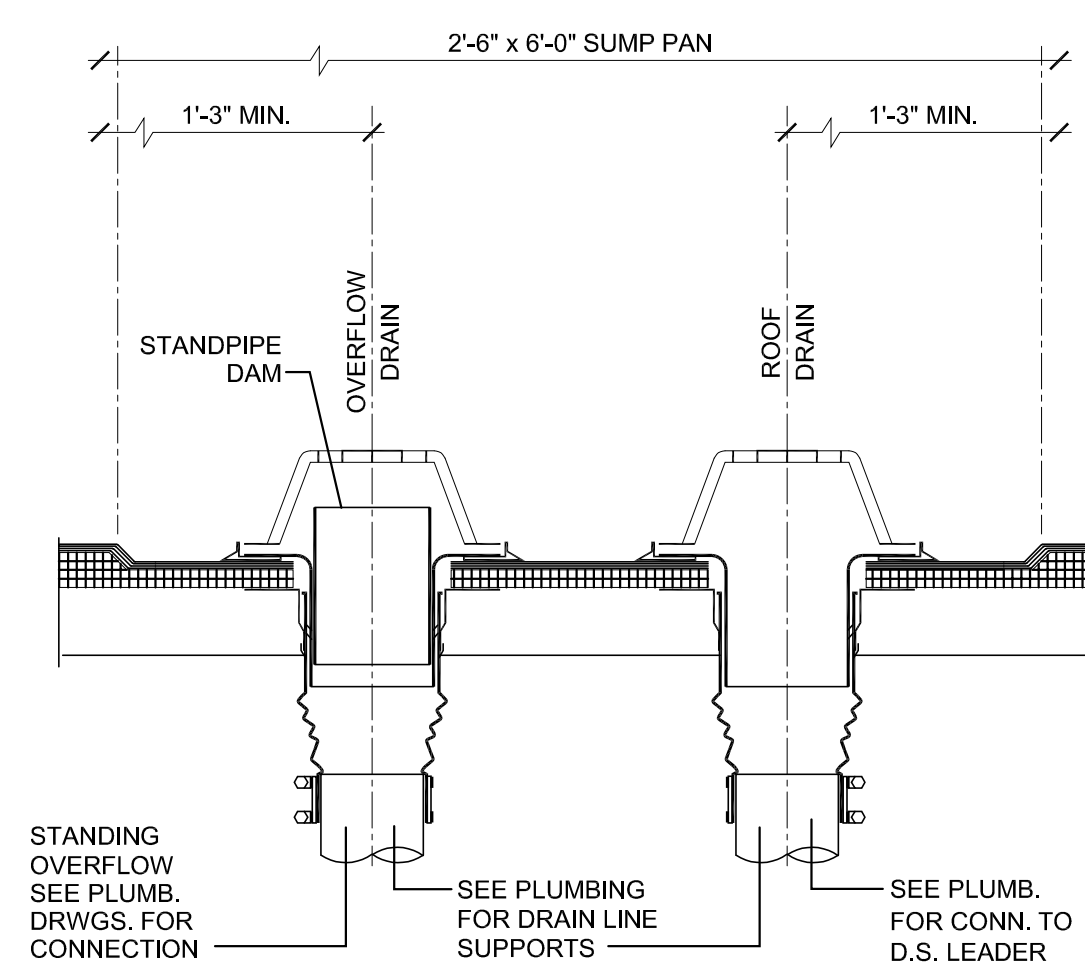
6 TYPICAL GAS PIPING SLEEVE THROUGH BUILDING DETAIL
SCALE: NO SCALE



7 SUB-SOIL DRAINAGE SYSTEM
SCALE: NO SCALE



8 ELEVATOR SUMP/SUMP PUMP DETAIL
SCALE: NO SCALE



9 ROOF DRAIN DETAIL
SCALE: NO SCALE

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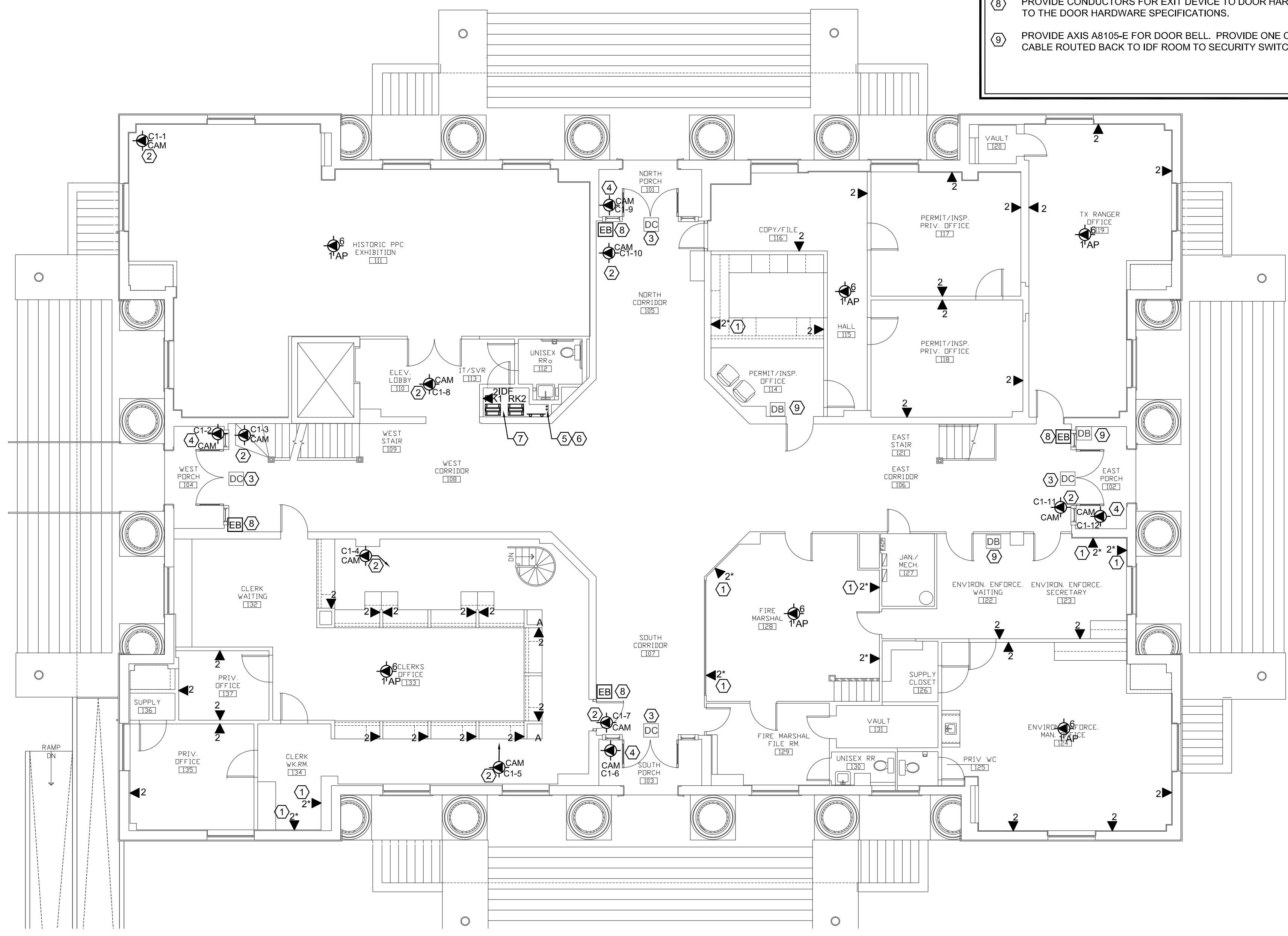
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KOMATSU ARCHITECTURE		ISSUED FOR CONSTRUCTION	REVISIONS SWL DESCRIPTION DATE APPROVED
POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION			
101 W. Church Street Livingston, TX 77351		PLUMBING DETAILS	SHEET SIZE: 22 x 34 SCALE: KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #
P4.02			

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 SHEET SIZE = ANSI D 22x34

XREFS:



1 TECHNOLOGY 1ST FLOOR PLAN
1/8" = 1'-0"

NOTES BY SYMBOL "E"

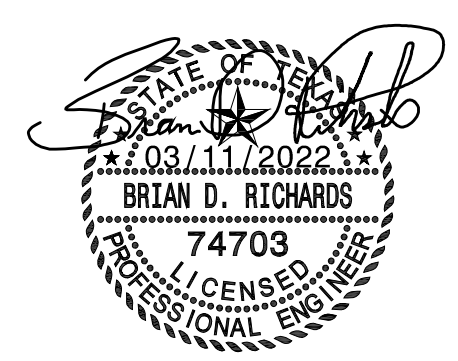
- ① *- DENOTES DATA DROP WITH SHALLOW WALL BOX, ASSOCIATED CONDUIT TO BE RECESSED IN SHALLOW TRENCH AND INFILLED FLUSH AND SEAMLESS WITH MATCHING PLASTER AND FINISHED AT EXISTING MASONRY WALL TO BE FULLY CONCEALED FROM VIEW. REFER TO DETAILS 4A, 4B AND 4C ON SHEET T6.01.
- ② PROVIDE CATEGORY 6 CABLE FROM CAMERAS TO IDF. ELECTRICAL CONTRACTOR TO PROVIDE 3/4" CONDUIT FROM IDF TO CAMERAS.
- ③ PROVIDE 4 CONDUCTOR CABLE FROM DOOR POSITION SWITCHES TO ROOM NEAREST IDF ROOM. PROVIDE DOOR HARDWARE FOR DOOR AND CARD READER. PROVIDE DOOR POSITION SWITCH TO INTERFACE WITH SECURITY SYSTEM. PROVIDE ADEQUATE SIZED TRANSFORMER AND ELECTRONIC DOOR COORDINATOR FOR PROPER INSTALLATION. REFER TO ELECTRICAL SHEETS FOR POWER. REFER TO DOOR HARDWARE SPECIFICATION 08 71 00A. COORDINATE WITH ELECTRICAL CONTRACTOR FOR INSTALLATION. REFER TO T601 FOR DETAIL.
- ④ PROVIDE BACKBOX AND DATA DROPS FOR EXTERIOR CAMERAS. TEST END TO END
- ⑤ ROUTE 6 STRANDS UP TO THE 2ND FLOOR, AND 6 STRANDS UP TO THE 3RD FLOOR FROM MAIN MDF.
- ⑥ PROVIDE 2 - 2" CORES WITH SLEEVE UP TO 1ST FLOOR. CONTRACTOR SHALL FIELD VERIFY SLAB CORES DO NOT CONFLICT WITH BEAMS PRIOR TO CORING. CORE HOLES SHALL BE LOCATED IN SLAB ONLY AND CONTRACTORS SHALL CONFIRM LOCATIONS FROM UNDERSIDE OF FLOOR WITHIN THE CEILING SPACE. IN ADDITION, CONTRACTOR SHALL USE FERROSCAN TO LOCATE CORES BETWEEN EXISTING SLAB REINFORCING.
- ⑦ REFER TO T5.01 FOR DETAILS IN THIS AREA.
- ⑧ PROVIDE CONDUCTORS FOR EXIT DEVICE TO DOOR HARDWARE. REFER TO THE DOOR HARDWARE SPECIFICATIONS.
- ⑨ PROVIDE AXIS A8105-E FOR DOOR BELL. PROVIDE ONE CATEGORY 6 CABLE ROUTED BACK TO IDF ROOM TO SECURITY SWITCH.

GENERAL NOTES

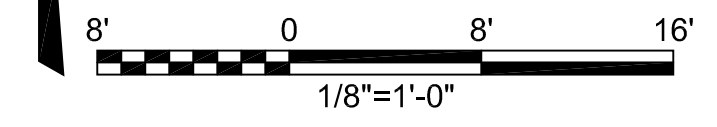
1. ALL CABLE LENGTHS ARE APPROXIMATE LENGTHS. CONTRACTOR SHALL VERIFY EXACT CABLE LENGTHS REQUIRED.
2. THE DISTANCE FOR THE DATA DROPS HAVE A 10 FT. SERVICE LOOP IN THE IDF ROOM AND 1 FT. SERVICE LOOP AT WORK AREA OUTLET INCLUDED IN THE CALCULATION. USE VELCRO TO TIE SERVICE LOOP UP ABOVE THE LADDER TRAY AND CEILING. PROPERLY STORE AND SECURE SERVICE LOOPS TO AVOID ENTANGLEMENT HAZARDS AND PROTECT FROM PHYSICAL DAMAGE.
3. THE DISTANCE FOR THE SURVEILLANCE DATA DROPS HAVE 20 FT. SERVICE LOOP IN MDF/IDF ROOMS INCLUDED IN THE CALCULATION.
5. THE CEILING/STRUCTURE HEIGHTS VARY. FIELD VERIFY EXACT HEIGHTS.
6. REFER TO THE STANDARD JACK COLOR LEGEND FOR ALL JACKS.
7. ALL PATCH CABLES SHALL MATCH THE JACK COLOR.
8. AT THE MDF AND IDF ALL CATEGORY 6 PATCH CORDS SHALL HAVE EITHER A 5 FOOT OR 7 FOOT SERVICE LOOP. A RATIO OF 80% OF THE PATCH CORDS IN THIS ENVIRONMENT SHALL BE 5 FEET IN LENGTH AND 20% SHALL BE 7 FEET IN LENGTH FOR EACH NEW CABLE INSTALLED. REFER TO THE STANDARD JACK COLOR LEGEND FOR THE COLORS OF PATCH CABLES
9. PROVIDE A 10' CATEGORY 6 PATCH CORD SERVICE LOOP AT ALL WORKSTATIONS UNLESS OTHERWISE SPECIFIED IN WRITING BY OWNER.
10. CATEGORY 6 PATCH CABLES SHALL BE BLACK IN COLOR.
11. THE CONTRACTOR SHALL PATCH AND DRESS ALL PATCH CORDS WITHIN THE HC, IC OR MC. EACH VOICE AND DATA PORT SHALL BE PATCHED.
12. THE CONTRACTOR SHALL PATCH ALL EQUIPMENT CORDS AT THE WORKSTATION. THE CORD SHALL BE UNPACKAGED, UNTIED, AND PLUGGED INTO THE DATA PORT FOR USE BY THE PC INTEGRATOR.
13. THE CONTRACTOR SHALL PATCH AND DRESS EACH VOICE-PORT TO THE APPROPRIATE SWITCH-TAIL PORT. THE OWNER WILL PROVIDE A CUT-SHEET INDICATING WHICH SWITCH-TAIL IS ALLOCATED TO EACH VOICE PORT. THE CONTRACTOR SHALL PROVIDE A "CUT-SHEET" DOCUMENTING THE WORKSTATION-TO-LAN/PBX PORT ASSIGNMENTS. THE CONTRACTOR SHALL REMAIN RESPONSIBLE FOR THE ACCURACY OF THIS WORKSHEET UNTIL PROJECT ACCEPTANCE.
14. DRAWINGS ARE BASED ON LIMITED SITE VISITS AND AS BUILT DRAWINGS. IF ANY CONFLICTS OR QUESTIONS ARISE CONTRACTOR IS TO DOCUMENT AND PREPARE AN RFI AND SUBMIT TO ARCHITECT FOR REVIEW PURPOSES.
15. COORDINATE EXACT DATA DROP MOUNTING LOCATION(S) AND ORIENTATION(S) WITHIN SPACE WITH OWNER'S TECHNOLOGY REPRESENTATIVE.

SECURITY GENERAL NOTES

1. VERIFY EXACT LOCATION OF ALL COMPONENTS AND DEVICES WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. ALL COMPONENTS AND DEVICES SHOWN ON THESE DRAWINGS ARE FOR APPROXIMATE LOCATION AND POSITIONING ONLY.
2. ALL SECURITY CABLING PATHWAYS OUTSIDE OF SECURITY ROOMS SHALL BE BY DIV 16. ALL CONDUIT RUNS SHALL BE FROM THE INSTALLED SECURITY DEVICE LOCATION TO THE NEAREST ACCESSIBLE CEILING SPACE BACK TO THE IDF ROOM.
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7. J HOOK SUPPORTS SHALL RUN PARALLEL TO OR BE ATTACHED TO TELECOM CABLE TRAY WHERE POSSIBLE. SUPPORT SECURITY CABLING AT INTERVALS OF NO GREATER THAN FIVE FEET APART.
8. WALL PENETRATIONS FOR SECURITY CABLING SHALL BE SLEEVED WITH A MINIMUM OF 1" SLEEVES. SLEEVES SHALL BE PROPERLY FIRESTOPPED USING HILTI FIRE STOP IF IT IS THROUGH A FIRE RATED WALL.



44.03.11.2022.19004



<p>KOMATSU ARCHITECTURE</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">ISSUED FOR CONSTRUCTION</p>	<p>REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">03/10/22</td> <td style="text-align: center;">APPROVED</td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION	1	03/10/22	APPROVED						
NO.	DATE	DESCRIPTION											
1	03/10/22	APPROVED											
<p>THE RECORD COPY OF THIS DRAWING IS ON FILE AT THE OFFICES OF KOMATSU ARCHITECTURE, INC., 3880 HULEN ST., FORT WORTH, TX. THIS ELECTRONIC DOCUMENT IS RELEASED FOR THE PURPOSES OF REFERENCE, COORDINATION, AND/OR FACILITY MANAGEMENT UNDER THE AUTHORITY OF KARL KOMATSU REG. # 6845 ON NOV 23, 2021. ANY MODIFICATION(S) TO THIS DRAWING SHALL BE IN COMPLIANCE WITH THE TEXAS BOARD OF ARCHITECTURAL EXAMINERS' RULES.</p>													
<p>POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION</p> <p>101 W. Church Street Livingston, TX 77351</p> <p>TECHNOLOGY 1ST FLOOR PLAN</p>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>SHEET SIZE</td> <td>22 x 34</td> </tr> <tr> <td>SCALE:</td> <td>1/8" = 1'-0"</td> </tr> <tr> <td>KAI JOB NUMBER:</td> <td>2017.171B</td> </tr> <tr> <td>SPECIFICATIONS NO.:</td> <td>N/A</td> </tr> <tr> <td>DATE:</td> <td>MARCH 11, 2022</td> </tr> <tr> <td>SHEET 3 OF SEQ # 7</td> <td></td> </tr> </table>		SHEET SIZE	22 x 34	SCALE:	1/8" = 1'-0"	KAI JOB NUMBER:	2017.171B	SPECIFICATIONS NO.:	N/A	DATE:	MARCH 11, 2022	SHEET 3 OF SEQ # 7	
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SHEET 3 OF SEQ # 7													

T2.01

GENERAL NOTES

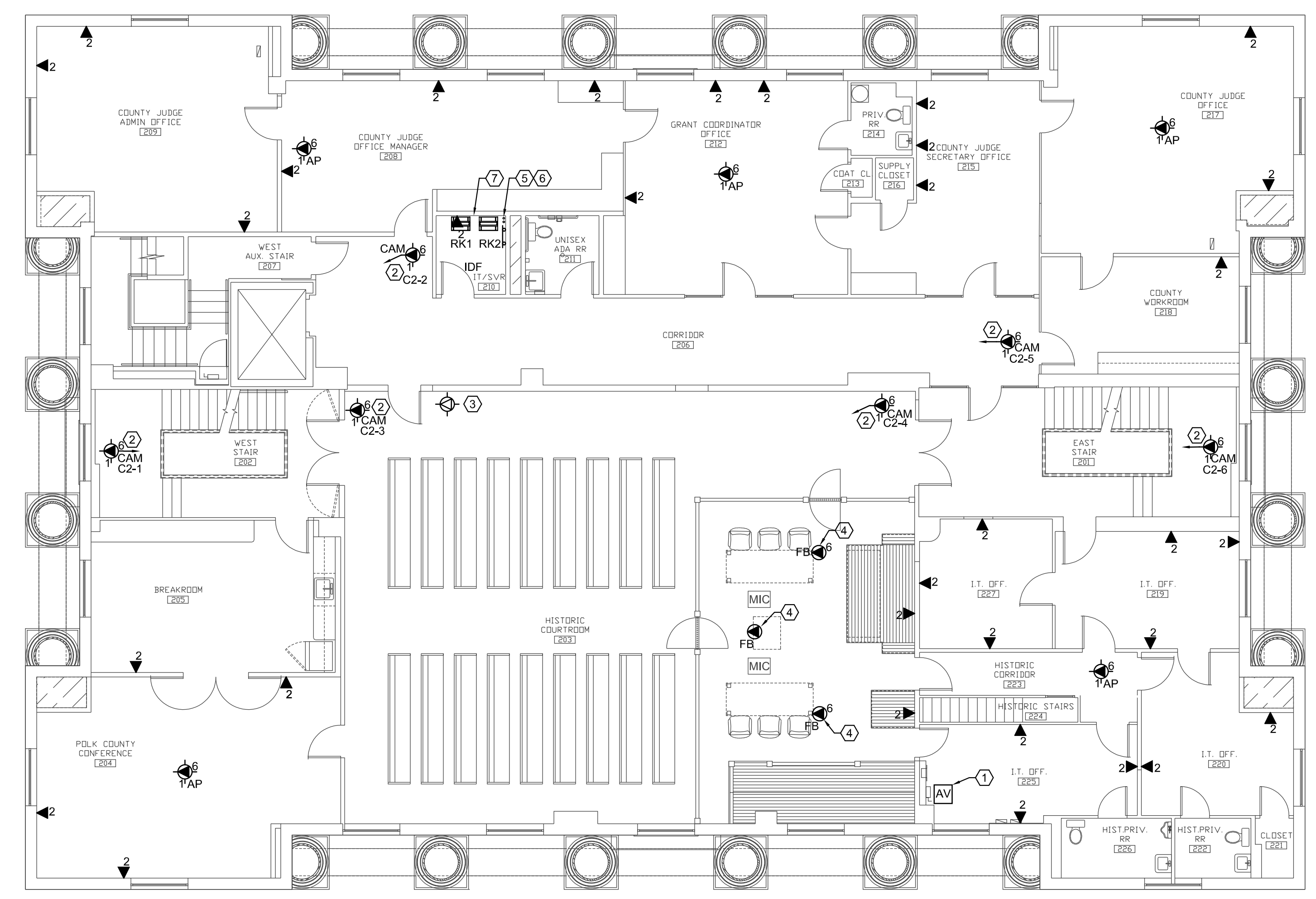
- ALL CABLE LENGTHS ARE APPROXIMATE LENGTHS. CONTRACTOR SHALL VERIFY EXACT CABLE LENGTHS REQUIRED.
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- REFER TO THE STANDARD JACK COLOR LEGEND FOR ALL JACKS.
- ALL PATCH CABLES SHALL MATCH THE JACK COLOR.
- AT THE MDF AND IDF ALL CATEGORY 6 PATCH CORDS SHALL HAVE EITHER A 5 FOOT OR 7 FOOT SERVICE LOOP. A RATIO OF 80% OF THE PATCH CORDS IN THIS ENVIRONMENT SHALL BE 5 FEET IN LENGTH AND 20% SHALL BE 7 FEET IN LENGTH FOR EACH NEW CABLE INSTALLED. REFER TO THE STANDARD JACK COLOR LEGEND FOR THE COLORS OF PATCH CABLES.
- PROVIDE A 10' CATEGORY 6 PATCH CORD SERVICE LOOP AT ALL WORKSTATIONS UNLESS OTHERWISE SPECIFIED IN WRITING BY OWNER.
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NOTES BY SYMBOL "Ⓢ"

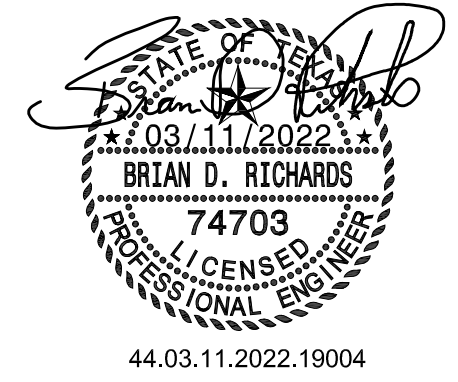
- EXISTING AUDIO VISUAL EQUIPMENT FROM PREVIOUS PHASE TO BE REINSTALLED.
- PROVIDE CATEGORY 6 CABLE FROM CAMERAS TO IDF. ELECTRICAL CONTRACTOR TO PROVIDE 3/4" CONDUIT FROM IDF TO CAMERAS.
- EXISTING JVC CAMERA FROM PREVIOUS PHASE TO BE REINSTALLED.
- PROVIDE AUDIO VISUAL CONNECTIONS AND DATA. COORDINATE WITH ELECTRICAL CONTRACTOR FOR CONDUIT.
- ROUTE 6 STRANDS UP TO THE 3RD FLOOR FROM MAIN MDF.
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- REINSTALL OWNER PROVIDED AND DEVICES.
- PROVIDE AUDIO VISUAL CONNECTIONS AND DATA. COORDINATE WITH OWNER PRIOR TO INSTALLATION. COORDINATE WITH ELECTRICAL CONTRACTOR FOR CONDUIT.



1 TECHNOLOGY 2ND FLOOR PLAN
1/8" = 1' - 0"

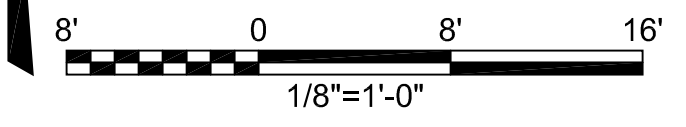
		03/10/22 DATE
ISSUED FOR CONSTRUCTION		1 SYMBOL
POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION		ADDENDUM ??? DESCRIPTION
101 W. Church Street Livingston, TX 77351		REVISIONS
TECHNOLOGY 2ND FLOOR PLAN		APPROVED

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44.03.11.2022.19004

1330 Summit Avenue, Suite 514 Fort Worth, Texas 76102
Tel 817.529.6800 Fax 817.529.6649 www.solare-eng.com



SHEET SIZE	22 x 34
SCALE:	1/8" = 1'-0"
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET	4 OF SEQ # 7

T2.02

L:\Projects\2022\19004 - Polk County Courthouse\Technology\19004 - T2.02.dwg - T2.02_03/10/22_10:22:42 gmdayton
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GENERAL NOTES

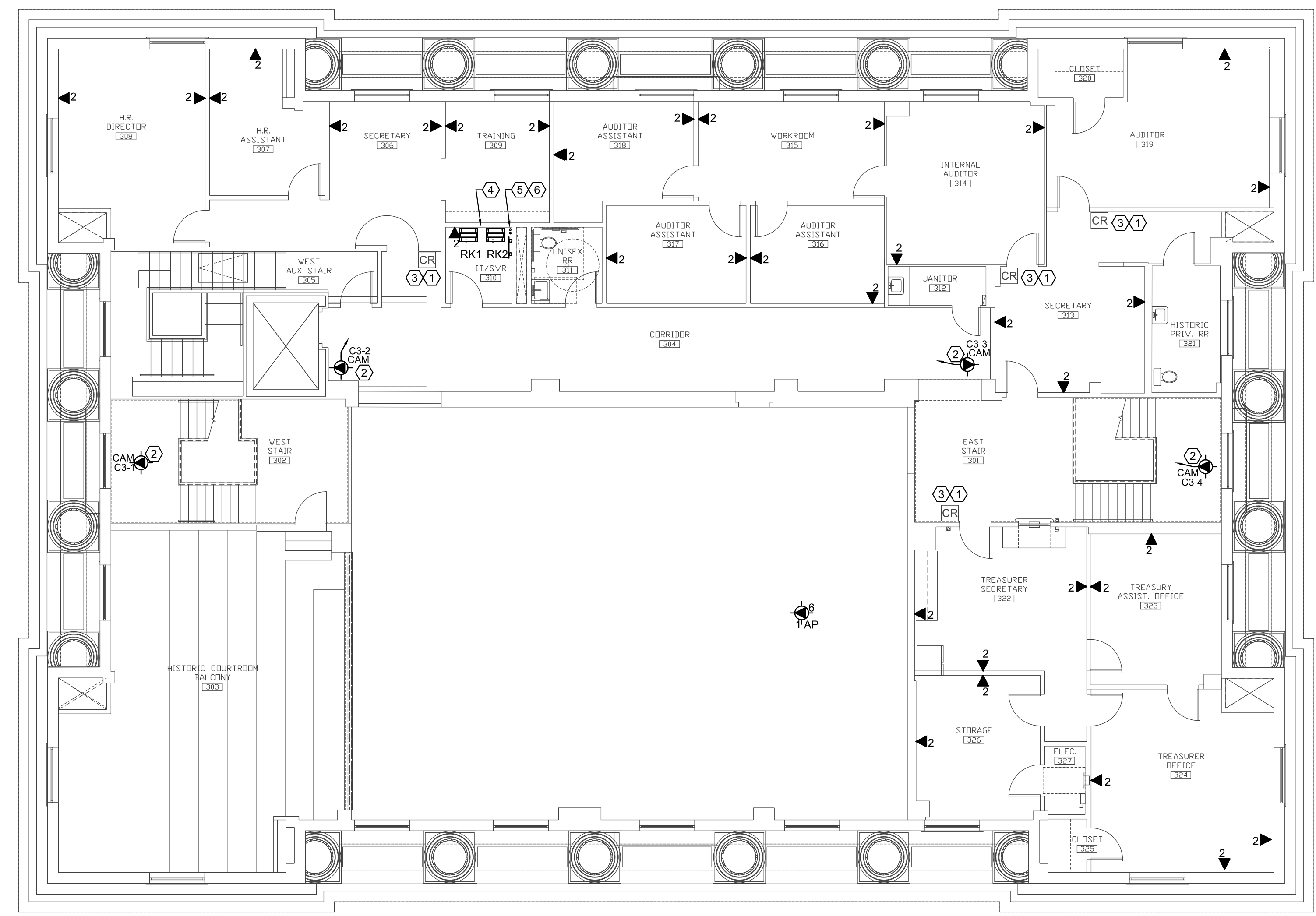
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NOTES BY SYMBOL "#"

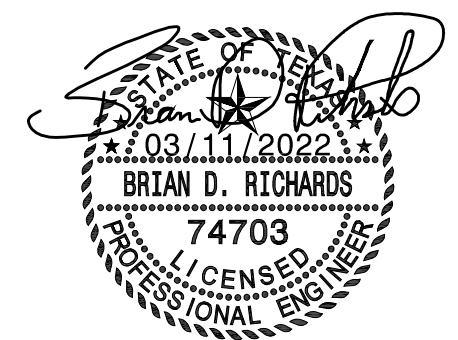
- PROVIDE BANANA CABLE FROM CARD READERS TO THE NEAREST IDF. CARD READERS TO BE INSTALLED ON DOOR.
 - PROVIDE CATEGORY 6 CABLE FROM CAMERAS TO IDF. ELECTRICAL CONTRACTOR TO PROVIDE 3/4" CONDUIT FROM IDF TO CAMERAS.
 - PROVIDE 4 CONDUCTOR CABLE FROM DOOR POSITION SWITCHES TO ROOM NEAREST IDF ROOM. PROVIDE DOOR HARDWARE FOR DOOR AND CARD READER. PROVIDE DOOR POSITION SWITCH TO INTERFACE WITH SECURITY SYSTEM. PROVIDE ADEQUATE SIZED TRANSFORMER AND ELECTRONIC DOOR COORDINATOR FOR PROPER INSTALLATION. REFER TO ELECTRICAL SHEETS FOR POWER. REFER TO DOOR HARDWARE SPECIFICATION 08 71 00A. COORDINATE WITH ELECTRICAL CONTRACTOR FOR INSTALLATION. REFER TO T601 FOR DETAIL.
 - REINSTALL OWNER PROVIDED EQUIPMENT AND DEVICES.
 - ROUTE 6 STRANDS UP TO THE 3RD FLOOR FROM MAIN MDF.
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1 TECHNOLOGY 3RD FLOOR PLAN
1/8" = 1'-0"

44.03.11.2022.19004

SOLARE
ENGINEERING UNLIMITED, INC.
1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102
Tel 817.529.6900 Fax 817.529.6649 www.solare-eng.com



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ARCHITECTURE

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POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

TECHNOLOGY 3RD FLOOR PLAN

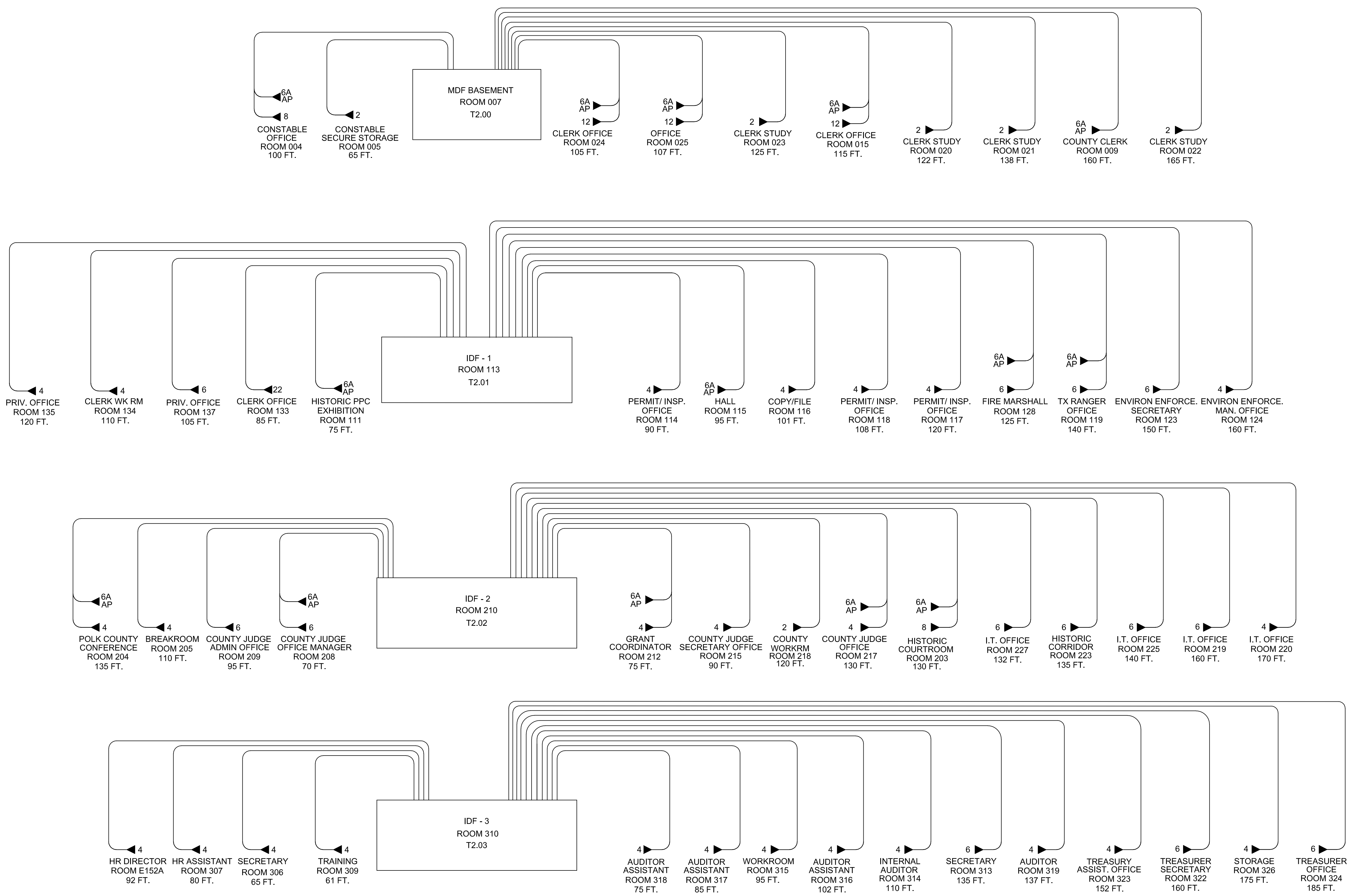
NO.	SYMBOL	DESCRIPTION	DATE	APPROVED

SHEET SIZE 22 x 34
SCALE: 1/8" = 1'-0"
KAI JOB NUMBER: 2017.171B
SPECIFICATIONS NO.: N/A
DATE: MARCH 11, 2022
SHEET 5 OF SEQ # 7

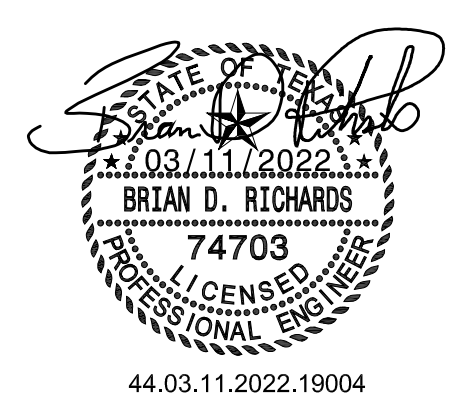
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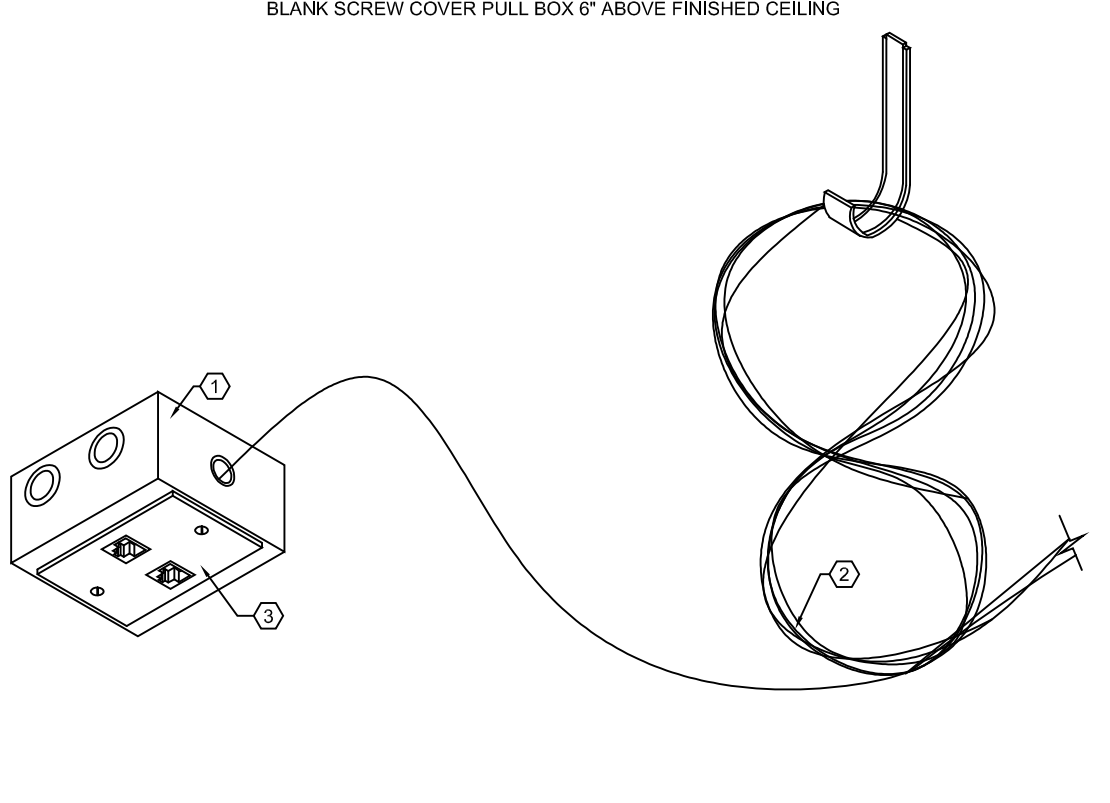
THE RISER DIAGRAM IS ESTIMATED DISTANCES. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY WITH FIELD MEASUREMENTS.



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 ENGINEERING UNLIMITED, INC.
 1300 Summit Avenue, Suite 514 Fort Worth, Texas 76102
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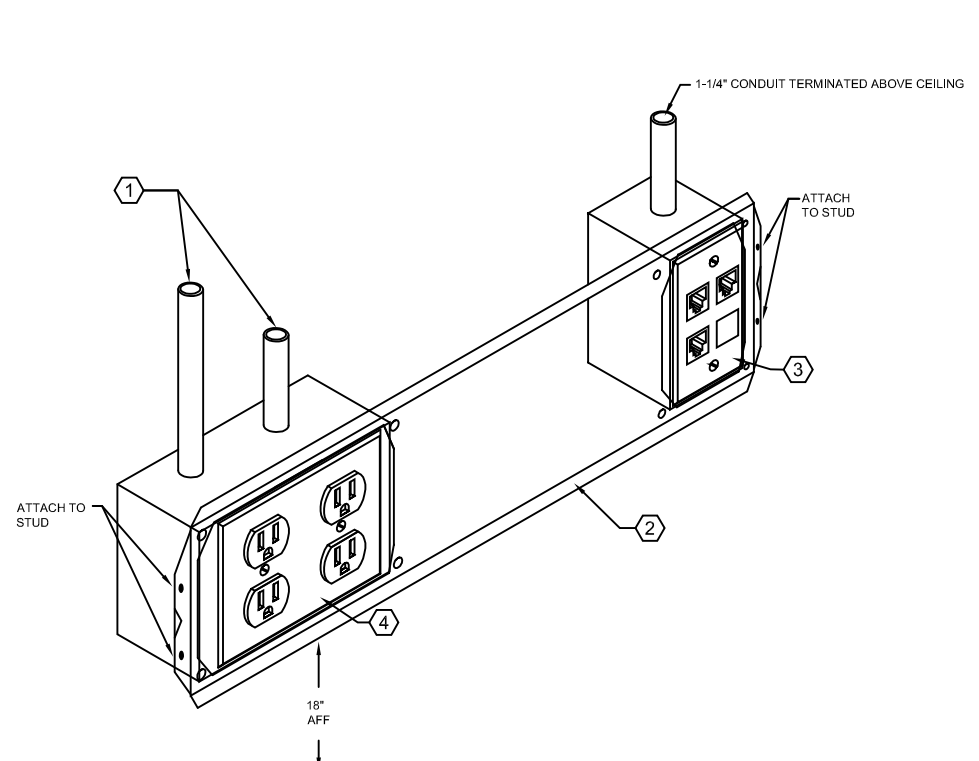
KOMATSU ARCHITECTURE							ISSUED FOR CONSTRUCTION
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POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION 101 W. Church Street Livingston, TX 77351 TECHNOLOGY RISER DIAGRAM							
SHEET SIZE 22 x 34 SCALE: NONE KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET 6 OF SEQ # 7							T4.01

- NOTES BY SYMBOL "#"**
- 1 PROVIDE A DOUBLE GANG BOX WITH A SINGLE GANG REDUCER PLATE. PROVIDE BUSHINGS TO PROTECT CABLE.
 - 2 PROVE A 20' SERVICE LOOP OF CABLING IN A FIGURE 8. COIL UP ABOVE CEILING SPACE AT WIRELESS BOX.
 - 3 PROVIDE A TWO PORT PLENUM-GRADE FACEPLATE.

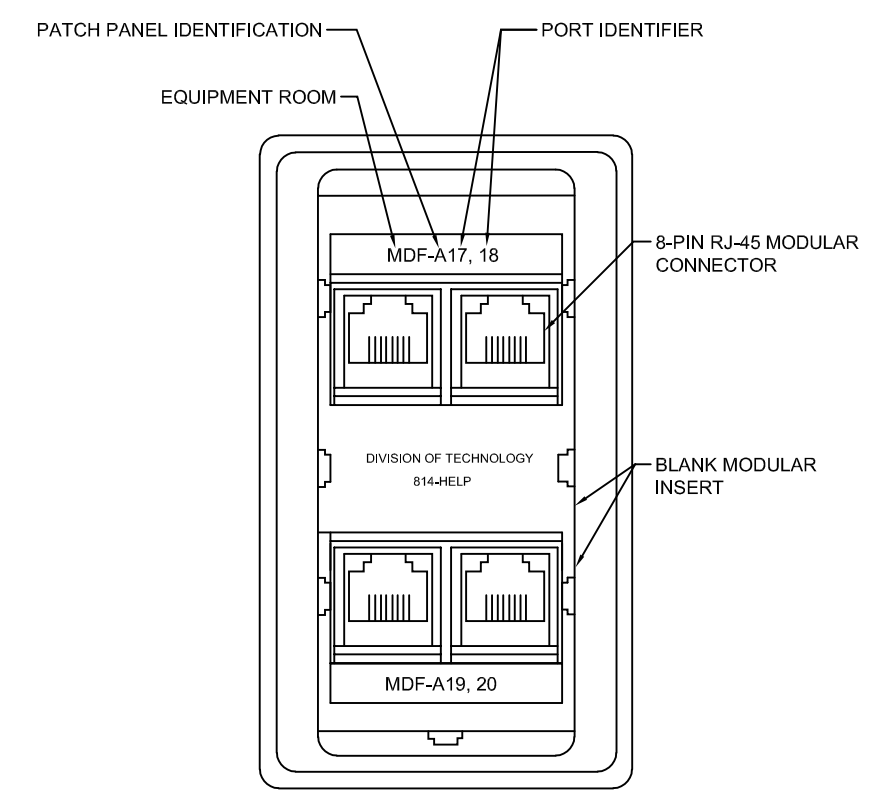


1 WIRELESS OUTLET DETAIL
NO SCALE

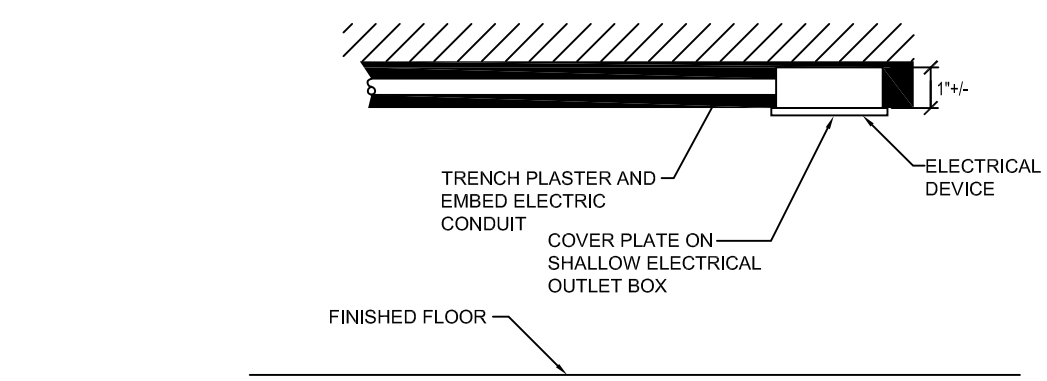
- NOTES BY SYMBOL "E"**
- 1 CONDUIT NUMBER, SIZE AND DESTINATION PER AV DRAWINGS.
 - 2 PROVIDE MOUNTING BRACKET TO ENSURE BOTH THE WAO AND THE ELECTRICAL RECEPTACLE ARE ALIGNED AND NO FARTHER THAN 18" APART.
 - 3 DATA/VOICE INFORMATION OUTLET/FACEPLATE/CONDUIT AS SPECIFIED IN T-SERIES DRAWINGS.
 - 4 TECHNICAL AV POWER OUTLET/FACEPLATE/CONDUIT AS SPECIFIED IN E-SERIES DRAWINGS.



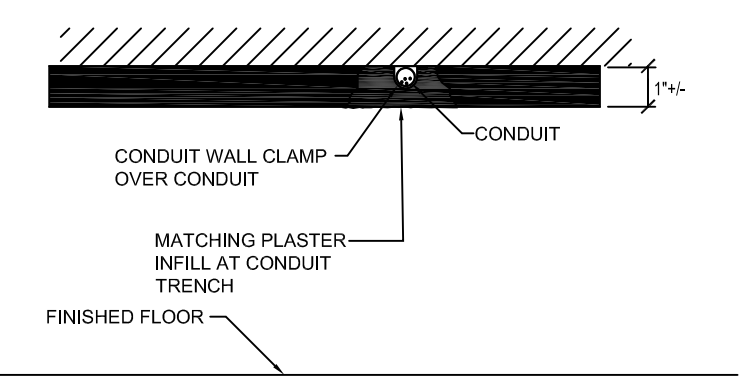
2 TYPICAL WAO WITH RECEPTACLE DETAIL
NO SCALE



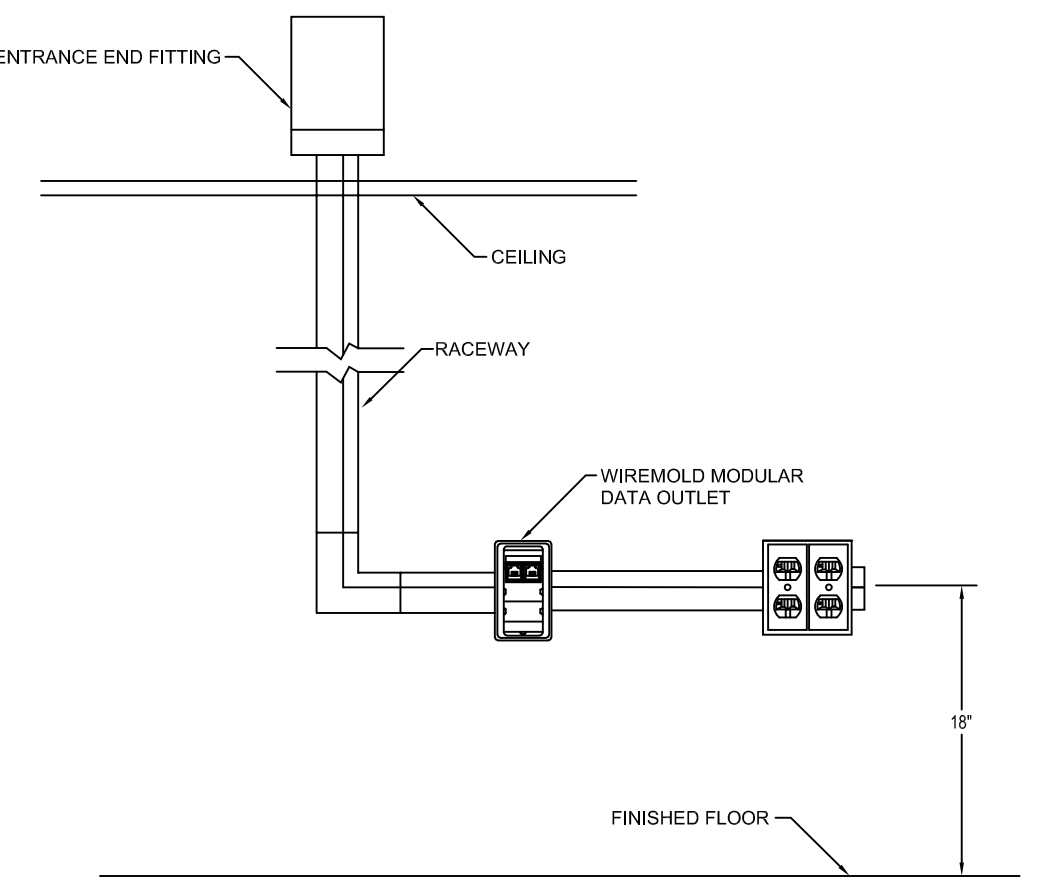
3 DATA WALL OUTLET
NO SCALE



4B RECESSED DEVICE OUTLET BOX
NO SCALE

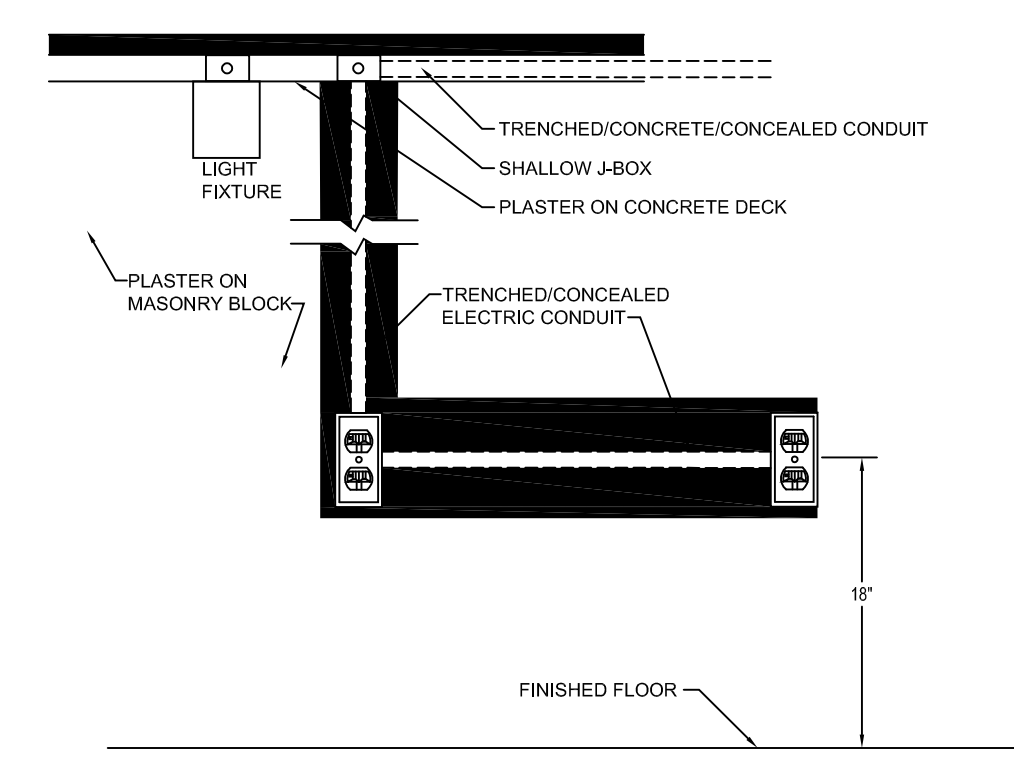


4C RECESSED ELECTRICAL CONDUIT
NO SCALE

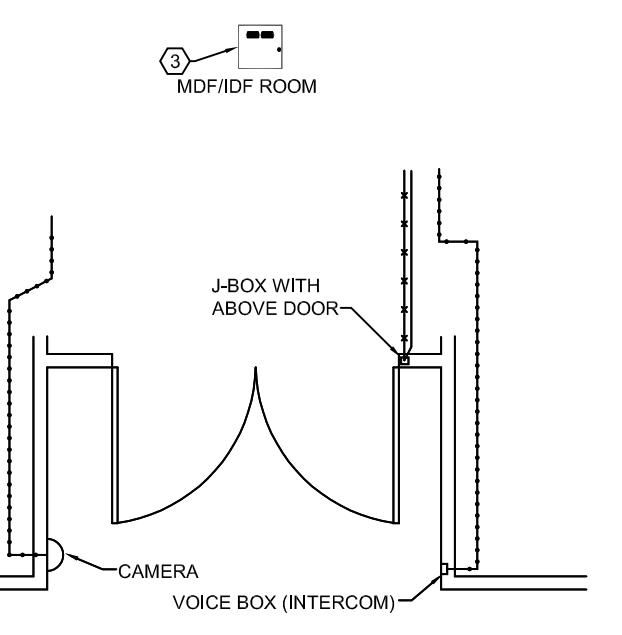


4 SURFACE MOUNTED RACEWAY
NO SCALE

NOTE: SURFACE MOUNTED WIRE RACEWAY AND/OR WIREMOLD PERMITTED ONLY IN NON-PUBLIC VISIBLE ROOMS/SPACES (E. NON-PUBLIC ACCESSIBLE COUNTY OFFICES, WORK ROOMS, STORAGE, AND/OR ELECTRICAL/MECHANICAL ROOMS. FOR ALL OTHER INSTANCES REFER TO CONDUIT DETAIL.

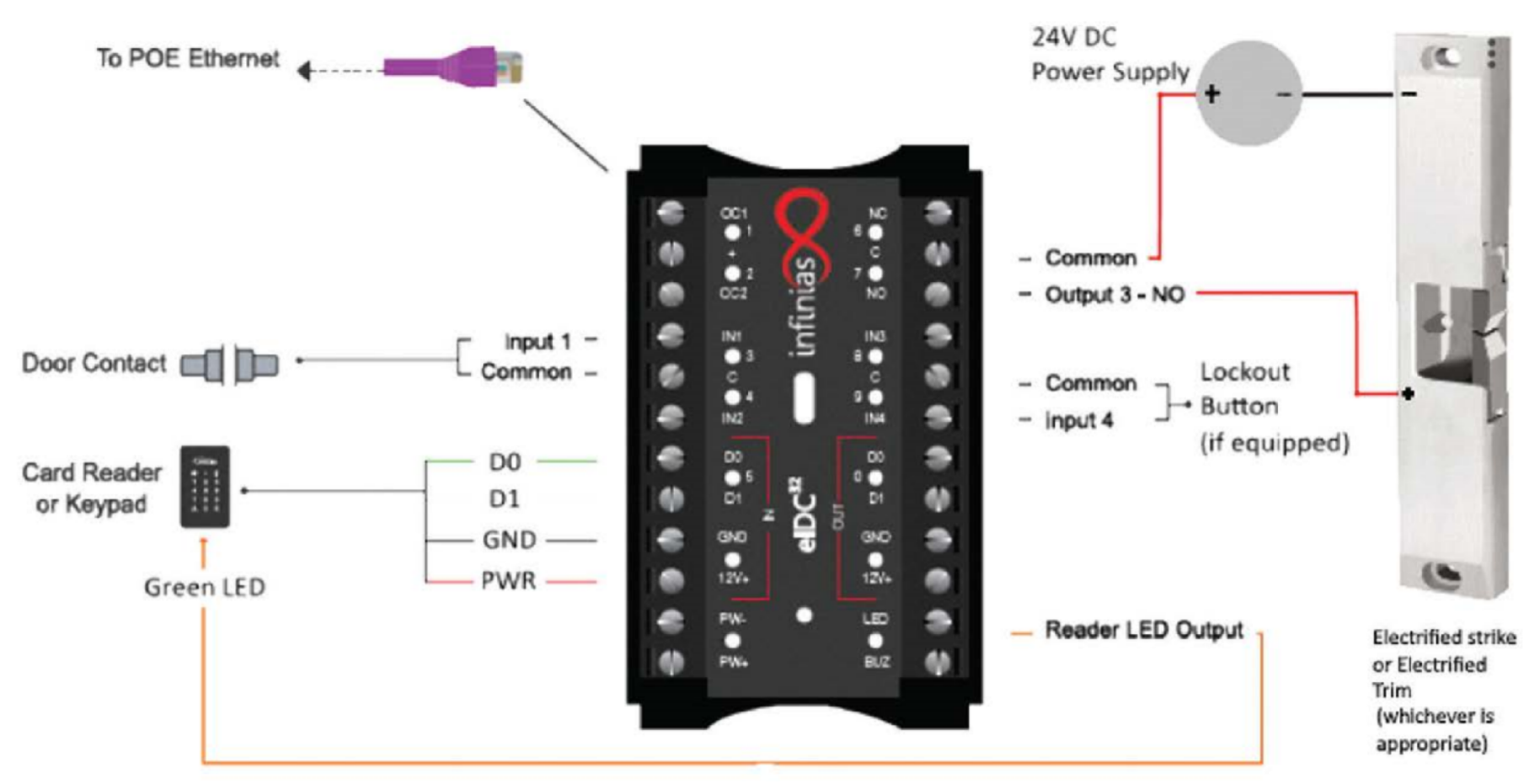
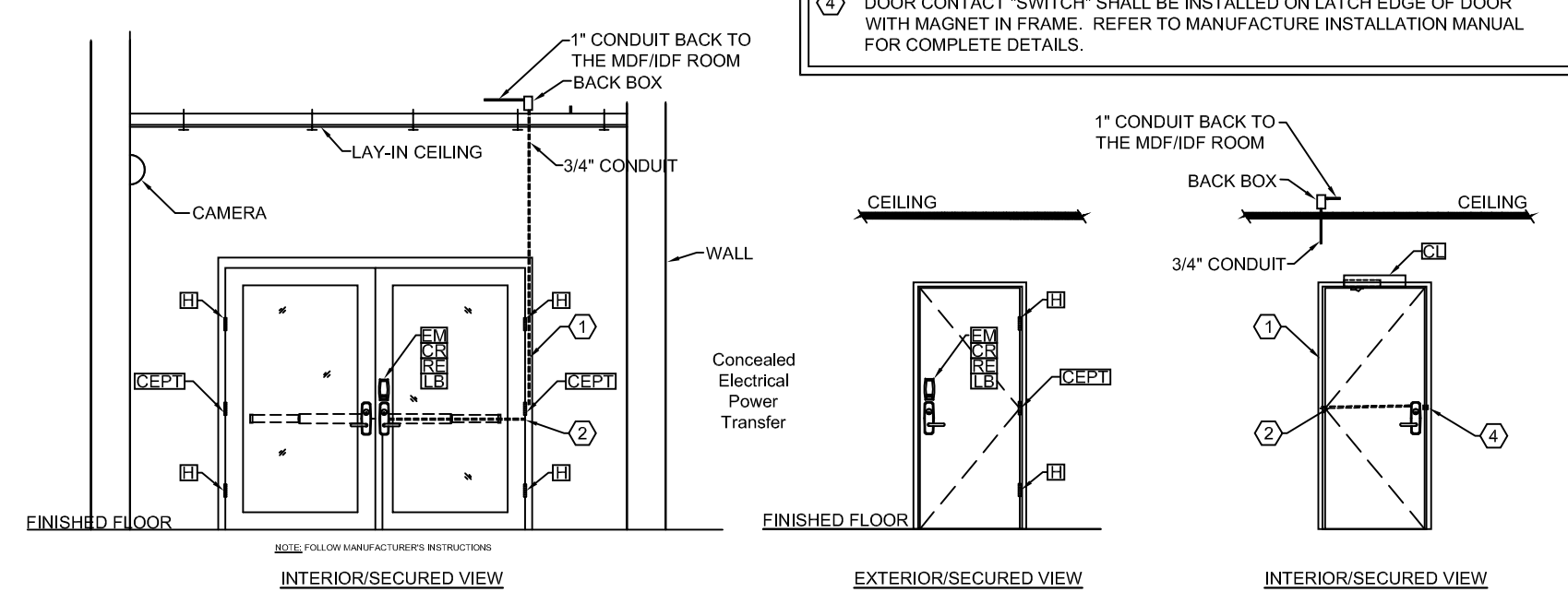


4A RECESSED MOUNTED CONDUIT AND ELECTRICAL DEVICES
NO SCALE

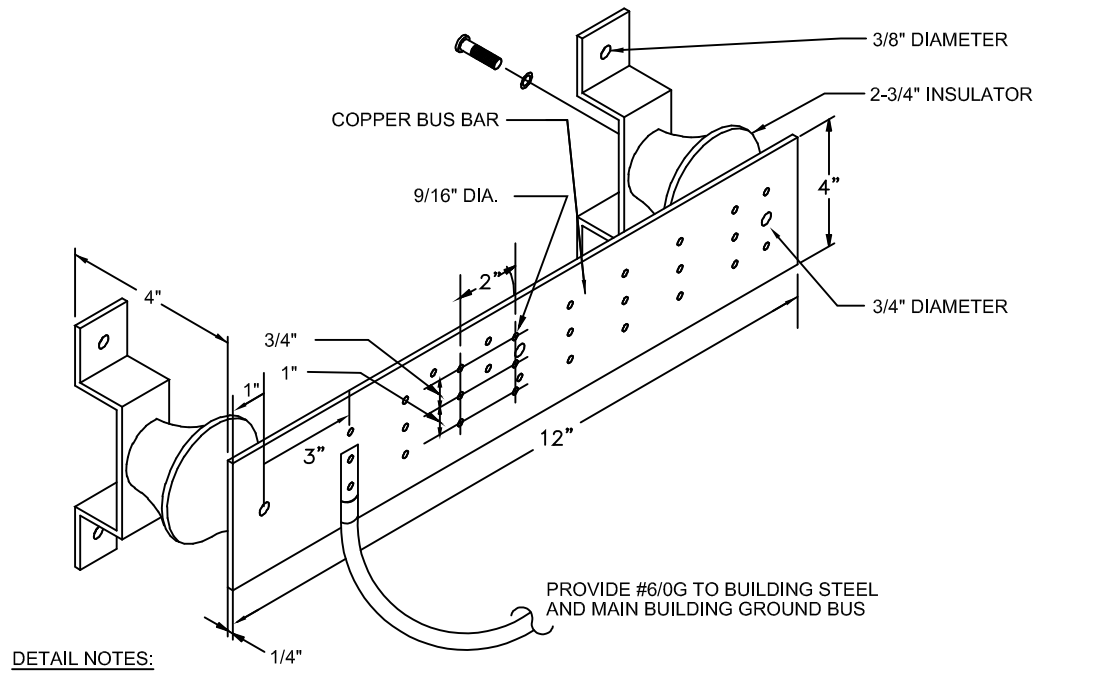


5 SECURITY ACCESS CONTROL DOOR DETAIL
NO SCALE

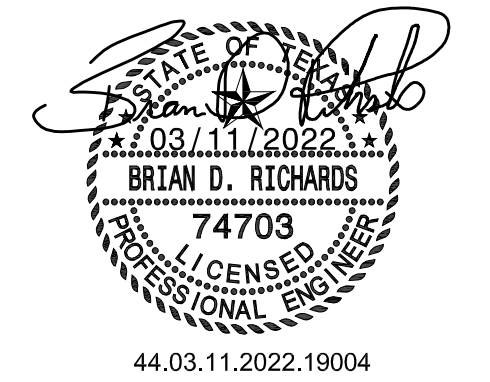
- NOTES BY SYMBOL "E"**
- 1 PROVIDE AND INSTALL 1/2" CONDUIT FROM J-BOX TO "MUB BOX" (NOT SHOWN) AT MIDDLE HINGE POSITION. PROVIDE ELECTROLYNX CABLE WITH GROUNDWIRE IN CONDUIT FOR CONCEALED ELECTRICAL POWER TRANSFER TO POWER SUPPLY. REFER TO MANUFACTURE INSTALLATION GUIDE FOR COMPLETE DETAILS.
 - 2 PREP DOOR WITH 3/8" CABLEWAY FROM CONCEALED ELECTRICAL POWER TRANSFER (CEPT) TO LOCK ASSEMBLY. INSTALL ELECTROLYNX CABLE FROM ELECTRIFIED HINGE TO LOCK ASSEMBLY. REFER TO MANUFACTURE INSTALLATION MANUAL FOR COMPLETE DETAILS.
 - 3 POWER SUPPLY SHALL BE LOCATED IN THE NEAREST MDF/IDF ROOM. PROVIDE DEDICATED 120VAC POWER CIRCUIT FOR POWER SUPPLY.
 - 4 DOOR CONTACT "SWITCH" SHALL BE INSTALLED ON LATCH EDGE OF DOOR WITH MAGNET IN FRAME. REFER TO MANUFACTURE INSTALLATION MANUAL FOR COMPLETE DETAILS.



6 INFINIAS MODULE INSTALLATION DIAGRAM
NO SCALE



7 GROUNDING BAR DETAIL
NO SCALE



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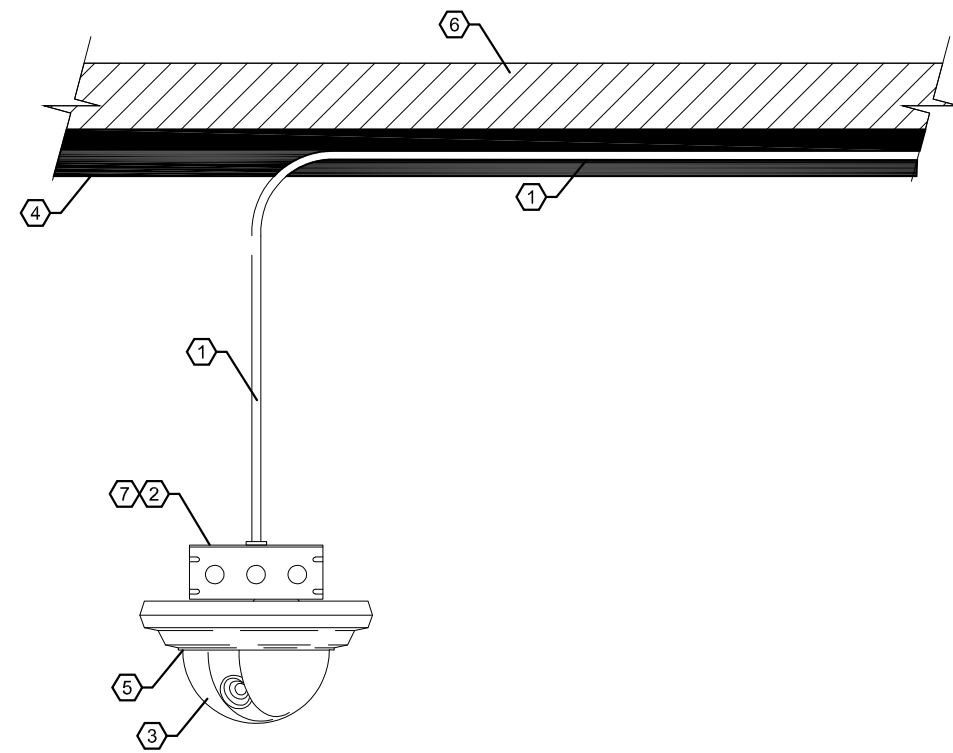
KOMATSU ARCHITECTURE		ISSUED FOR CONSTRUCTION		DATE	APPROVED
POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION		TECHNOLOGY DETAILS		SYMBOL	DESCRIPTION
101 W. Church Street Livingston, TX 77351					
SHEET SIZE	22 x 34				
SCALE	NONE				
KAI JOB NUMBER	2017.171B				
SPECIFICATIONS NO.	N/A				
DATE	MARCH 11, 2022				
SHEET	7 OF SEQ # 8				
T6.01					

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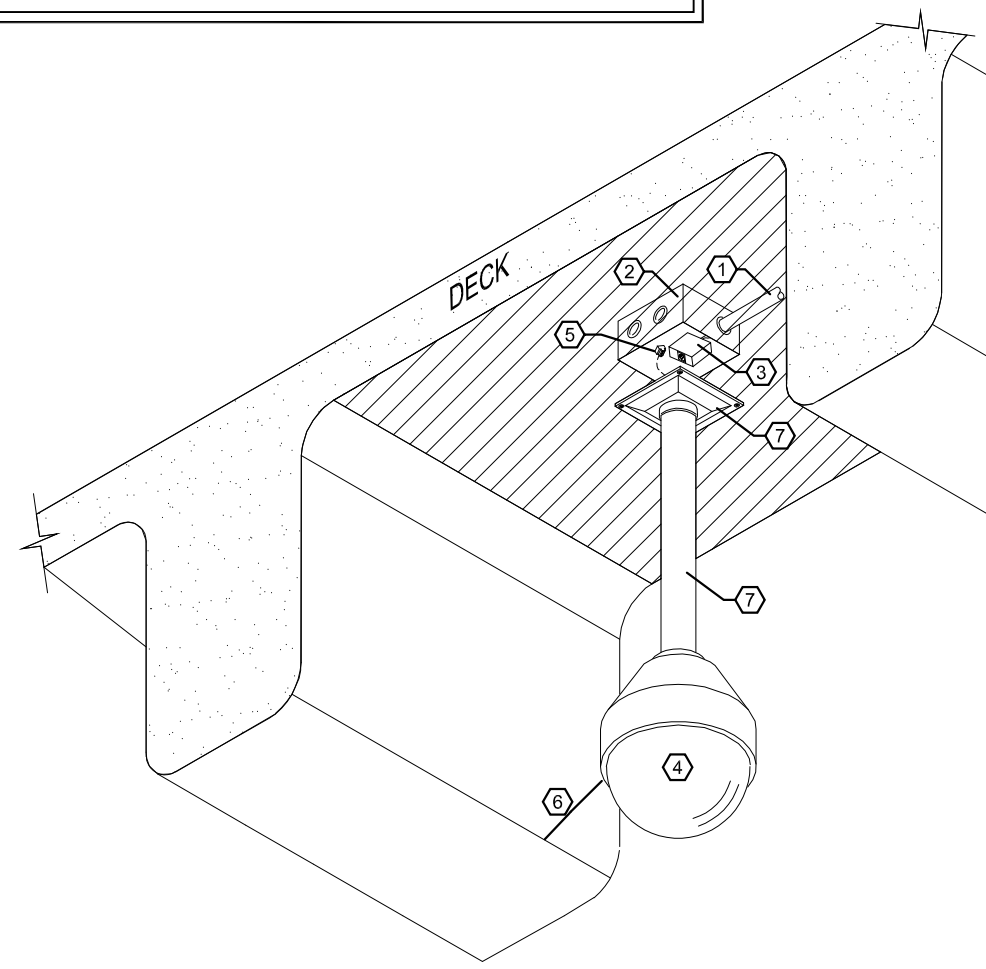
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- NOTES BY SYMBOL "a"**
- 1 PROVIDE 3/4" CONDUIT TO ACCESSIBLE CEILING OR CABLE.
 - 2 PROVIDE DOUBLE GANG BOX 4 1/16" X 4 1/16" X 2 1/8". PROVIDE SUPPORT AS REQUIRED.
 - 3 PROVIDE CAMERA, ENCLOSURE, AND MOUNTING SUPPORT HARDWARE AS REQUIRED.
 - 4 CONDUIT TO BE RECESSED INTO TRENCHED AND INFILLED FLUSH WITH FINISHED PLASTER.
 - 5 SUSPENDED DOME OF CAMERA ONLY BELOW CEILING PANELS.
 - 6 STRUCTURAL DECK.
 - 7 PROVIDE BISCUIT WITH RJ-45 JACK UNMOUNTED IN BOX.



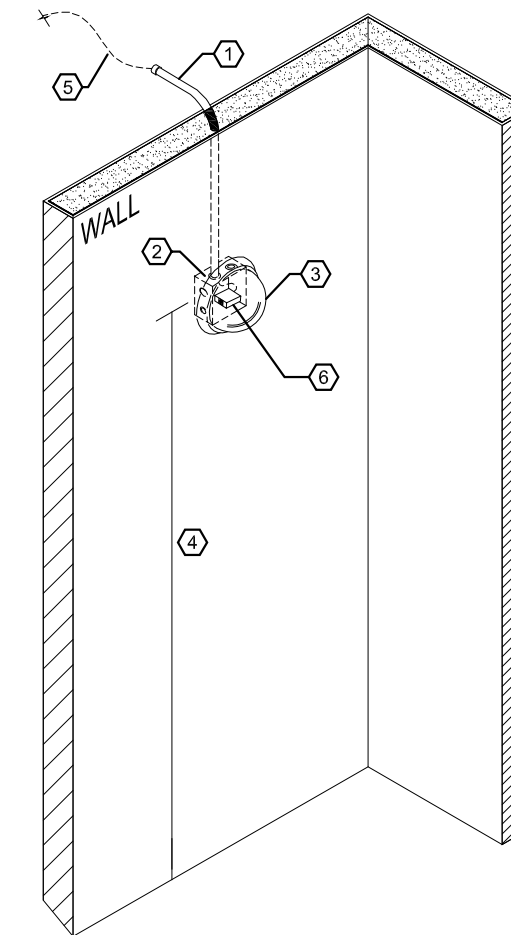
1 ELEVATOR LOBBY CAMERA DETAIL

- NOTES BY SYMBOL "b"**
- 1 PROVIDE 3/4" CONDUIT WITH PULL STRING HOMERUN TO PULL BOX.
 - 2 PROVIDE FLUSH MOUNTED DOUBLE GANG BOX 4-11/16" X 4-11/16" 4 11/16" DOUBLE GANG BOX FOR CAMERA MOUNTING.
 - 3 PROVIDE BISCUIT WITH RJ-45 JACK UNMOUNTED IN BOX.
 - 4 PROVIDE CAMERA, ENCLOSURE, AND MOUNTING SUPPORT HARDWARE AS REQUIRED BY THE MANUFACTURER.
 - 5 PATCH CABLES MUST BE FACTORY MADE.
 - 6 PROVIDE CAMERA DOME ONLY TO PROTRUDE BELOW SUPPORT MEMBERS. PROVIDE CLEARANCE TO ALLOW FOR COMPLETE CAMERA VIEW.
 - 7 PROVIDE PENDANT MOUNTING BRACKET WITH ADJUSTABLE PIPE MOUNTED TO BOX WITH TORX TAMPER RESISTANT SCREWS.

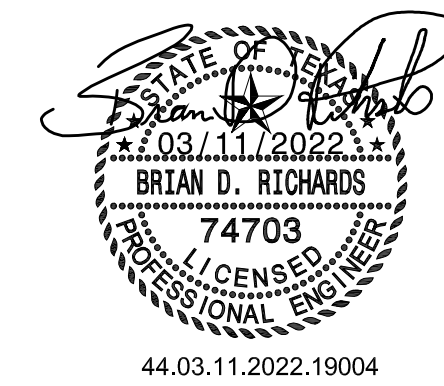


2 DECK MOUNTED CAMERA DETAIL

- NOTES BY SYMBOL "c"**
- 1 PROVIDE 3/4" CONDUIT WITH PULL STRING TO CEILING SPACE.
 - 2 PROVIDE FLUSH MOUNTED DOUBLE GANG BOX 4-11/16" X 4-11/16" X 2-1/8".
 - 3 PROVIDE DOME CAMERA, ENCLOSURE AND MOUNTING SUPPORT HARDWARE AS REQUIRED.
 - 4 PROVIDE 10'-0" TO 11'-0" TYPICAL. VERIFY IN FIELD OF MOUNTING HEIGHT.
 - 5 PROVIDE HOMERUN CABLE BACK TO NEAREST TELECOM ROOM.
 - 6 PROVIDE BISCUIT WITH RJ-45 JACK UNMOUNTED IN BOX.



3 WALL MOUNTED IP CAMERA DETAIL



44.03.11.2022.19004



POLK COUNTY COURTHOUSE
 PHASE TWO : RESTORATION
 101 W. Church Street
 Livingston, TX 77351
 TECHNOLOGY DETAILS

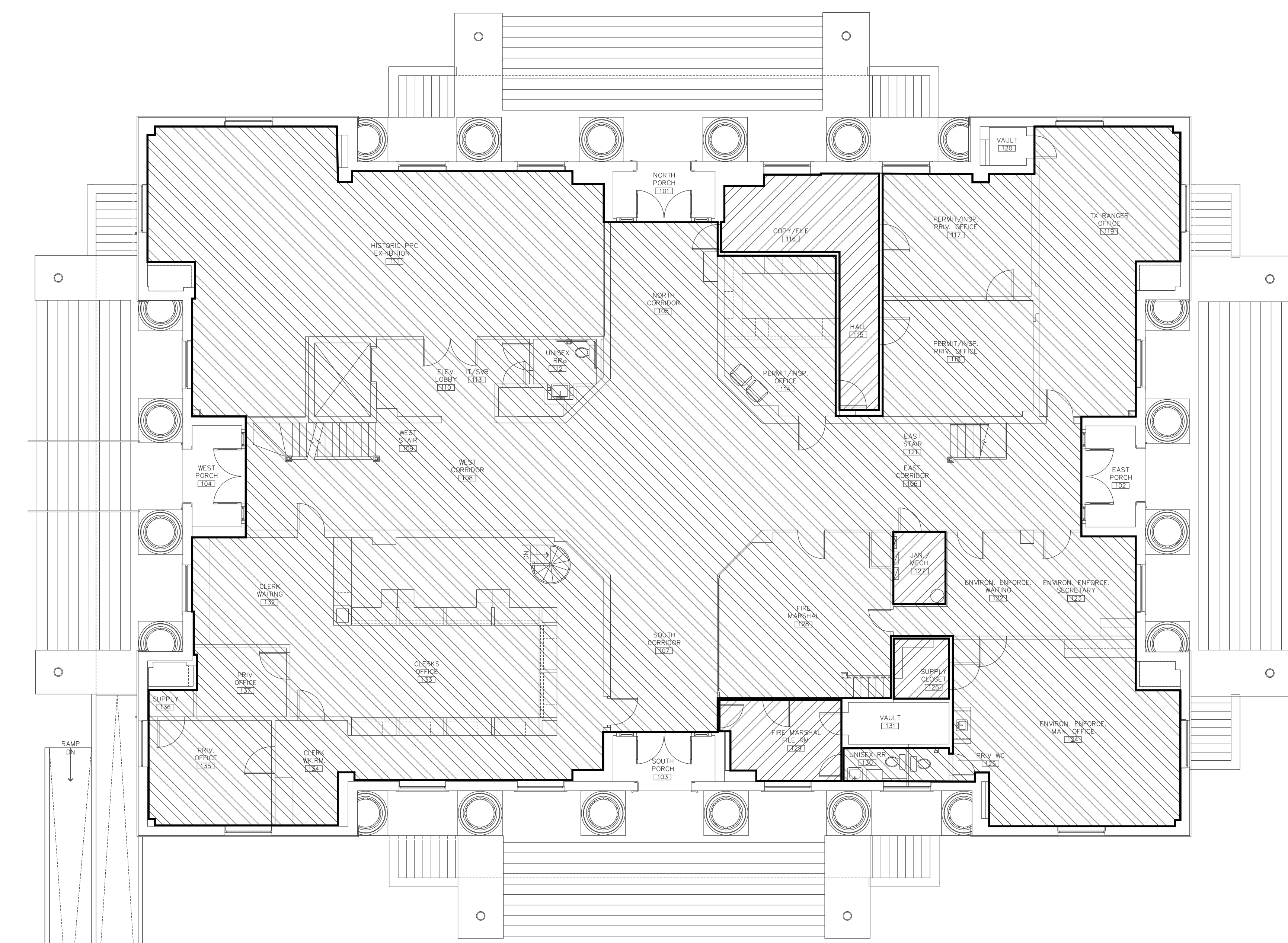
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SCALE:	NONE
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET	8 OF SEQ # 8

T6.02

SYMBOL	DESCRIPTION	DATE	APPROVED

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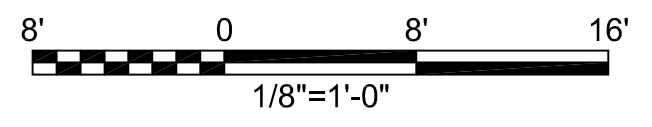
GENERAL NOTES

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<p>LIGHT HAZARD OCCUPANCY WET PIPE HORIZONTAL SIDEWALL QUICK RESPONSE, STANDARD COVERAGE DESIGN TO 0.10 GPM/SQ. FT. OVER A REMOTE OPERATING AREA OF 1500 SQUARE FEET. THE FIRE SPRINKLER HEAD COVERAGE SHALL NOT EXCEED 225 SQ. FT. PER HEAD. HORIZONTAL SIDEWALL, QUICK RESPONSE, STANDARD COVERAGE, 5.6K, 1/2" NPT, 155°F HEAD, WHITE FINISH (TYCO MODEL TY3331 OR EQUAL).</p>	
<p>ORDINARY HAZARD GROUP 1 OCCUPANCY WET PIPE HORIZONTAL SIDEWALL QUICK RESPONSE, STANDARD COVERAGE DESIGN TO 0.15 GPM/SQ. FT. OVER A REMOTE OPERATING AREA OF 1500 SQUARE FEET. THE FIRE SPRINKLER HEAD COVERAGE SHALL NOT EXCEED 225 SQ. FT. PER HEAD. HORIZONTAL SIDEWALL, QUICK RESPONSE, STANDARD COVERAGE, 5.6K, 1/2" NPT, 155°F HEAD, WHITE FINISH (TYCO MODEL TY3331 OR EQUAL).</p>	

1 FIRE PROTECTION 1ST FLOOR PLAN
1/8" = 1'-0"

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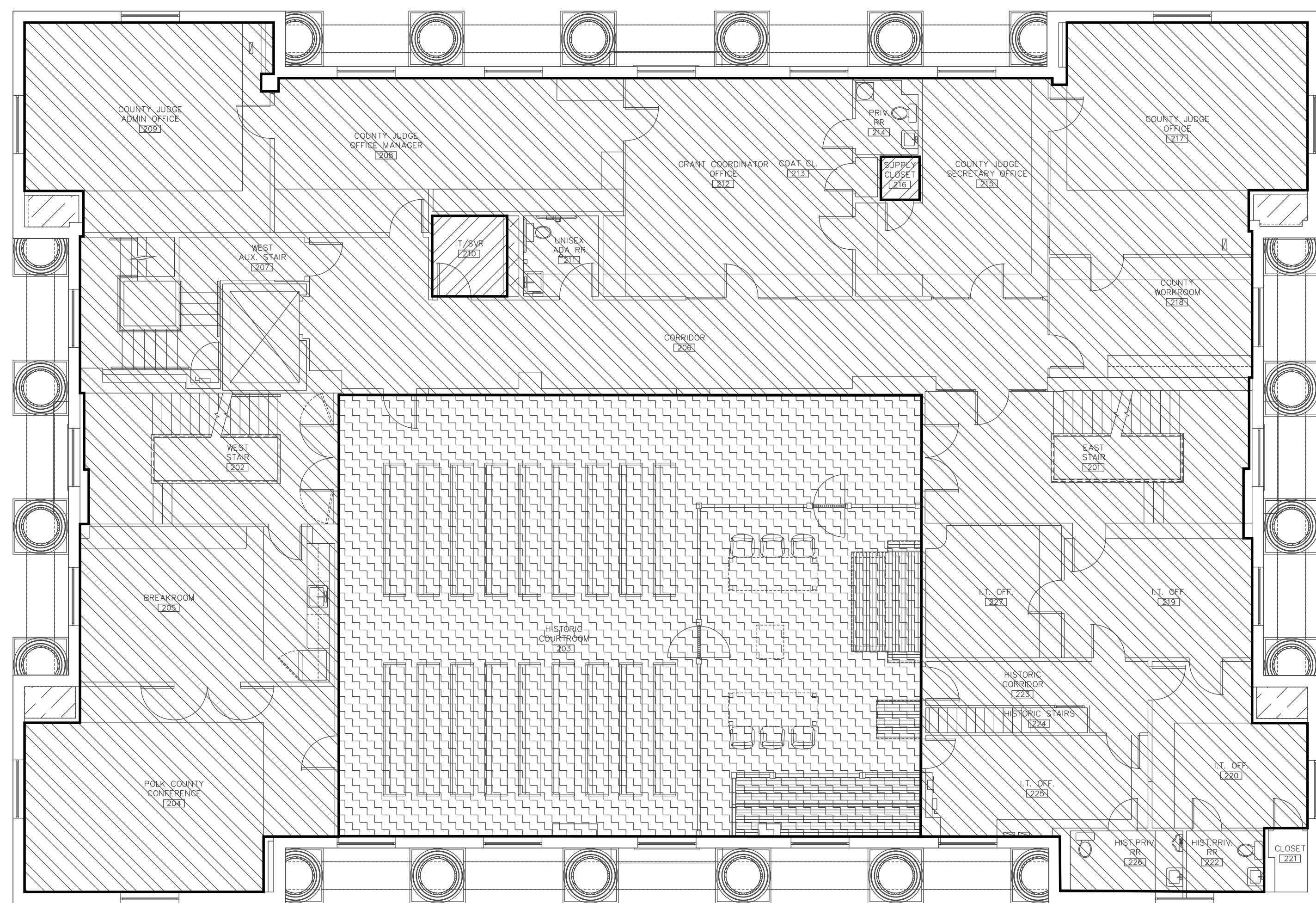
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<p>POLK COUNTY COURTHOUSE PHASE TWO : RESTORATION</p> <p>101 W. Church Street Livingston, TX 77351</p> <p>FIRE PROTECTION 1ST FLOOR PLAN</p>											
<p>SHEET SIZE: 22 x 34 SCALE: N/A KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #</p>	<p>FP2.01</p>										

SHEET SIZE = ANSI D 22x34

XREFS:

SHEET SIZE = ANSI D 22x34




XREFS:



1 FIRE PROTECTION 2ND FLOOR PLAN
1/8" = 1' - 0"

GENERAL NOTES

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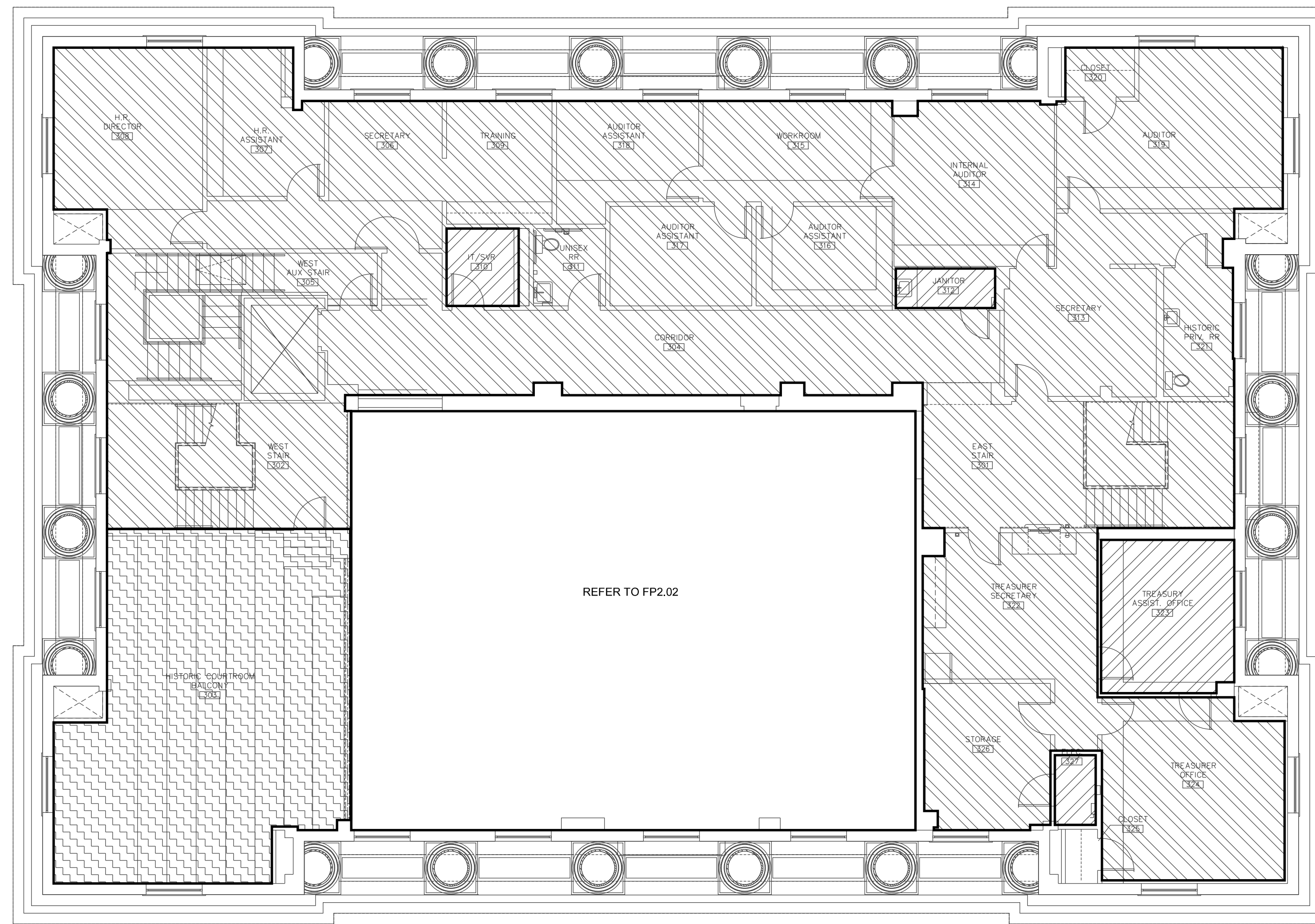


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<p>SHEET SIZE 22 x 34 SCALE: KAI JOB NUMBER: 2017.171B SPECIFICATIONS NO.: N/A DATE: MARCH 11, 2022 SHEET OF SEQ #</p>	<p>FP2.02</p>								

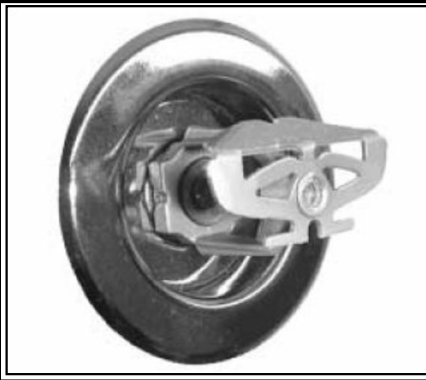
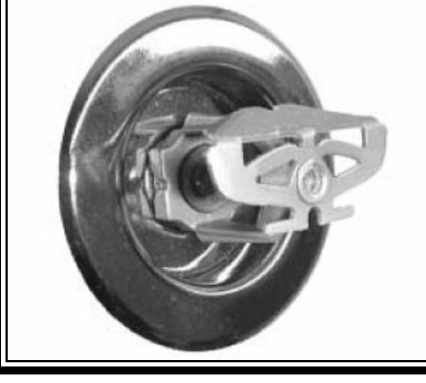

SHEET SIZE = ANSI D 22x34
XREFS:
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1 FIRE PROTECTION 3RD FLOOR PLAN
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1/8"=1'-0"

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POLK COUNTY COURTHOUSE
PHASE TWO : RESTORATION

101 W. Church Street
Livingston, TX 77351

FIRE PROTECTION 3RD FLOOR PLAN

SHEET SIZE	22 x 34
SCALE:	
KAI JOB NUMBER:	2017.171B
SPECIFICATIONS NO.:	N/A
DATE:	MARCH 11, 2022
SHEET OF SEQ #	FP2.03