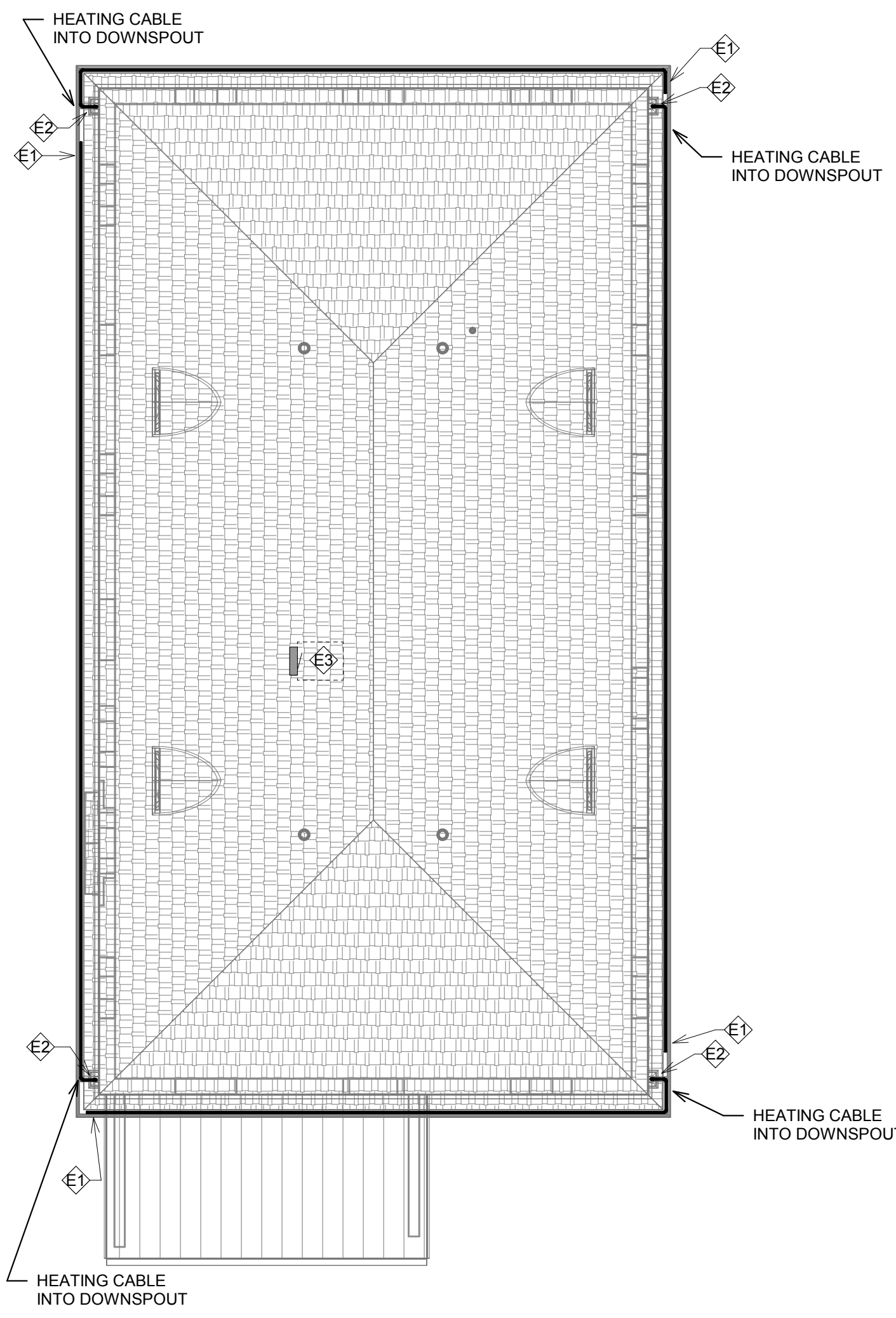


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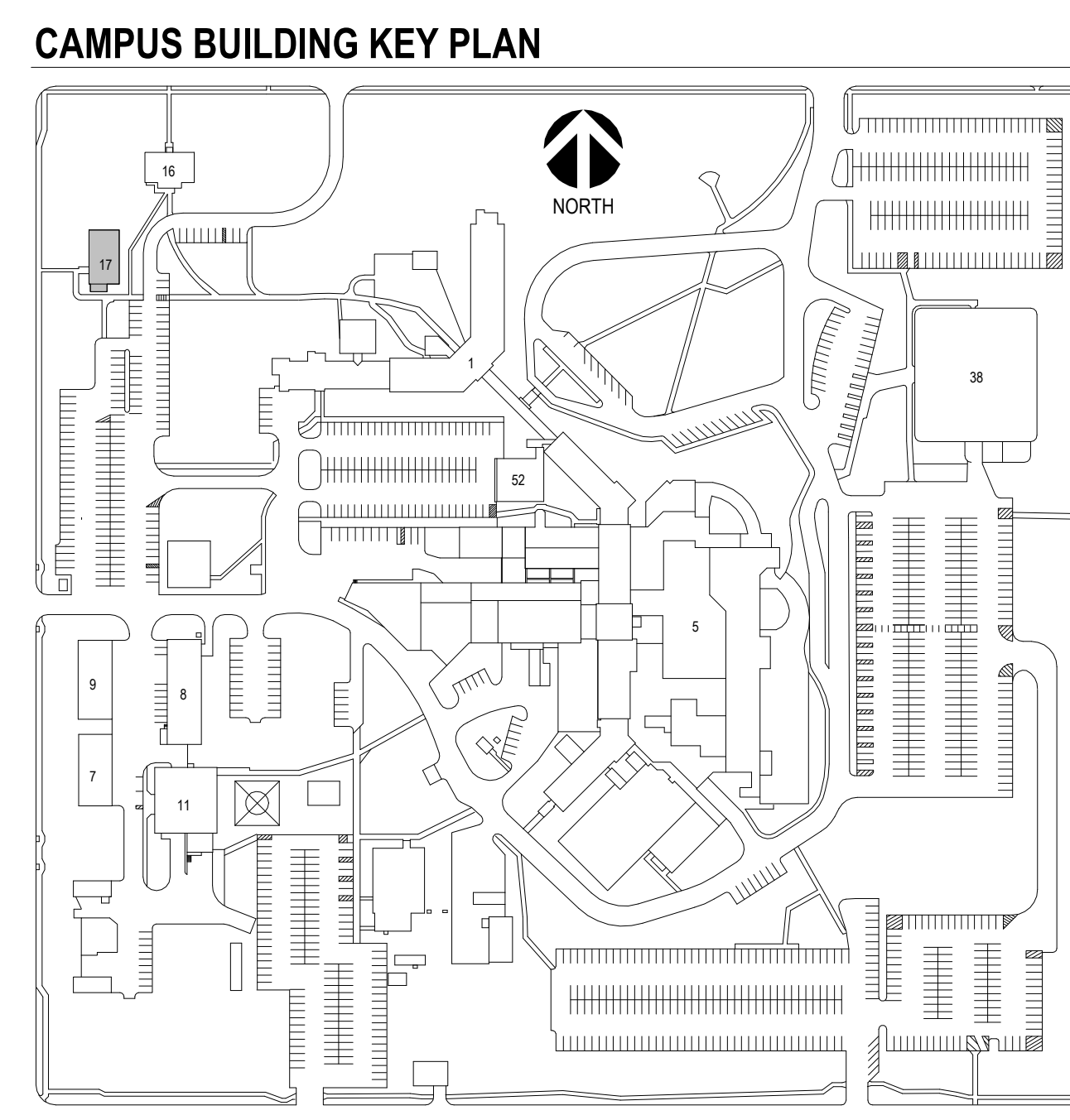
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1 MECHANICAL, ELECTRICAL, PLUMBING ROOF PLAN
1/8" = 1'-0"

- GENERAL NOTES:**
- A. MECHANICAL CONTRACTOR SHALL REFER TO SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.
 - B. WHERE APPLICABLE (FOR ANY INTERIOR STORM DRAIN PIPING SHOWN INSTALLED WITHIN BUILDINGS 5 AND 38). COORDINATE ALL NEW PIPE ROUTING WITH ALL OTHER EXISTING UTILITIES TO ENSURE ADEQUATE CLEARANCES FOR ELECTRICAL CONDUIT, HVAC DUCTWORK & PIPING, STRUCTURAL SUPPORTS, ETC. PROVIDE ALL OFFSETS & TRANSITIONS AS REQUIRED FOR A CLEAN INSTALLATION.
 - C. NOTE THAT ALL INTERIOR STORM DRAIN, AND OVERFLOW STORM DRAIN, PIPING MUST BE FULLY INSULATED ON BOTH HORIZONTAL AND VERTICAL PIPE SECTIONS. REFER TO SPECIFICATION FOR LABELING OF PIPING AND IDENTIFICATION OF CLEANOUT ACCESS POINTS.
 - D. THE EXACT LOCATION OF EXISTING ROOFTOP EQUIPMENT ROUGH-INS SHALL BE VERIFIED PRIOR TO REMOVAL AND REPLACEMENT. CONTRACTOR TO VERIFY SOURCE OF ALL SERVICES FOR ISOLATION.
 - E. SUPPORT ALL PIPING DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY PIPING FROM DUCTWORK, CONDUIT OR OTHER PIPING ENCOUNTERED.
 - F. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED OR DISTURBED DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.
 - G. COORDINATE ALL NEW ROOF DRAIN INSTALLATIONS. CONFIRM REQUIRED SIZE OF PENETRATION THROUGH STRUCTURAL ROOF TO BE DRILLED OR CUT BY THE CONTRACTOR. INFILL AROUND DRAIN BODY AND INCORPORATE INTO ROOFING MEMBRANE OR SYSTEM AS REQUIRED FOR WATER TIGHT SEAL.
 - H. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL PIPING, FITTINGS, VALVES & ACCESSORIES AS REQUIRED FOR INSTALLATION OF OWNER PROVIDED EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS.
 - I. CONTRACTOR TO PROVIDE CRANE RIGGING/PICK PLANS AT LEAST FOUR(4) WEEKS PRIOR TO SCHEDULED DATE. SUBMIT PLANS TO VA COR TO DISTRIBUTE TO APPROPRIATE SAFETY OFFICERS FOR DISRUPTION PLANNING. ALL DATES ARE TENTATIVE UNTIL APPROVED.
 - J. WHERE APPLICABLE ON INTERIOR WORK. PROVIDE CLEANOUTS AT BASE OF EVERY STORM DRAIN LEADER PRIOR TO PENETRATING SLAB ON GRADE. REFER TO SPECIFICATIONS THAT ALL PIPING, ABOVE AND BELOW GRADE, MUST BE FABRICATED OF CAST IRON.
 - K. CONTRACTOR SHALL MAINTAIN ACCURATE RECORD DRAWINGS SHOWING ALL DISCREPANCIES WITH ANY EXISTING PIPING INDICATED OR REVISIONS TO THE NEW PLUMBING OR FIRE PROTECTION LAYOUTS. ALL CHANGES WILL BE UPDATED WITHIN FINAL RECORD DRAWINGS.

- KEY NOTES: PLUMBING NEW WORK**
- NO PLUMBING WORK IS ANTICIPATED ON THIS DRAWING.
- KEY NOTES: MECHANICAL NEW WORK**
- NO MECHANICAL WORK IS ANTICIPATED ON THIS DRAWING.
- KEY NOTES: ELECTRICAL NEW WORK**
- E1 PROVIDE SELF-REGULATING HEATING CABLE WITH BRAID AND TEFLON STABILIZED POLYOLEFIN JACKET, CHROMALOX MODEL SRF-1RG1 OR EQUAL. WITHIN ALL HORIZONTAL GUTTERS AND VERTICAL DOWNSPOUTS. START CABLING FROM POINT INDICATED THROUGH HORIZONTAL GUTTER, AND INCLUDE DOWNSPOUT HANGERS TO SUPPORT CABLE DROPS TO TERMINATE JUST ABOVE GRADE. CONTRACTOR TO VERIFY LENGTHS OF CABLE REQUIRED AND PROVIDE ALL POWER CONNECTION KITS FOR FINAL CONNECTION BY ELECTRICAL CONTRACTOR. PROVIDE GFCI BREAKER AS REQUIRED BY NEC AND SIZED PER MANUFACTURER MAXIMUM CIRCUIT LENGTHS REQUIREMENTS. PROVIDE DEDICATED CIRCUIT FROM NEAREST SOURCE.
 - E2 PROVIDE RECESSED JUNCTION BOX BEHIND DOWNSPOUT. EXTEND HEATING CABLE TO NEXT ADJACENT DOWNSPOUT. INSTALL CONDUIT IN ATTIC, REFER TO ARCH F3/17.AE501.
 - E3 APPROXIMATE LOCATION OF EXISTING ELECTRICAL PANEL LOCATED ON FLOOR BELOW ROOF. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR ALL CEILING REMOVAL AND REPLACEMENT TO ROUTE CONDUIT WITHIN BUILDING TO EACH LOCATION INDICATED BY KEY NOTE #E1 ABOVE AND SEAL ROOF OR WALL PENETRATION AS REQUIRED. COORDINATE ACCESS TO BUILDING AREAS REQUIRED TO PERFORM WORK A MINIMUM OF 2-WEEKS IN ADVANCE AND COMPLY WITH ALL VA INFECTION CONTROL REQUIREMENTS.



Revision#	Description	Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title
M/E/P ROOF PLAN

Approved:

Phase
CONSTRUCTION DOCUMENTS

FOR OFFICIAL USE ONLY

Project Title
SIOUX FALLS VA HEALTH CARE SYSTEM CAMPUS IMPROVE CAMPUS BUILDING EXTERIORS

Location
SIOUX FALLS, SOUTH DAKOTA

Issue Date
09-15-2023

Checked
JRG

Drawn
JG,TM,BZ

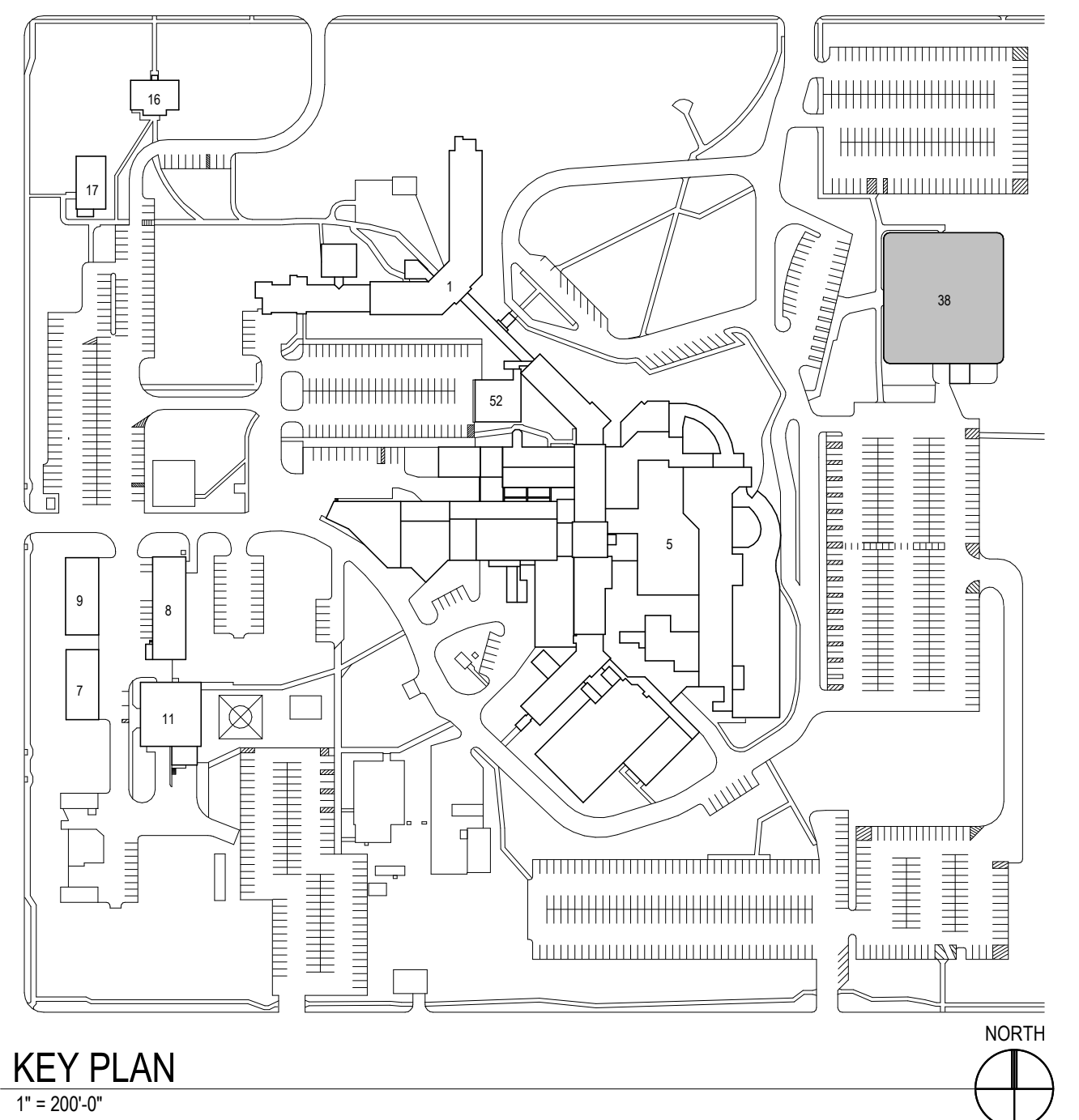
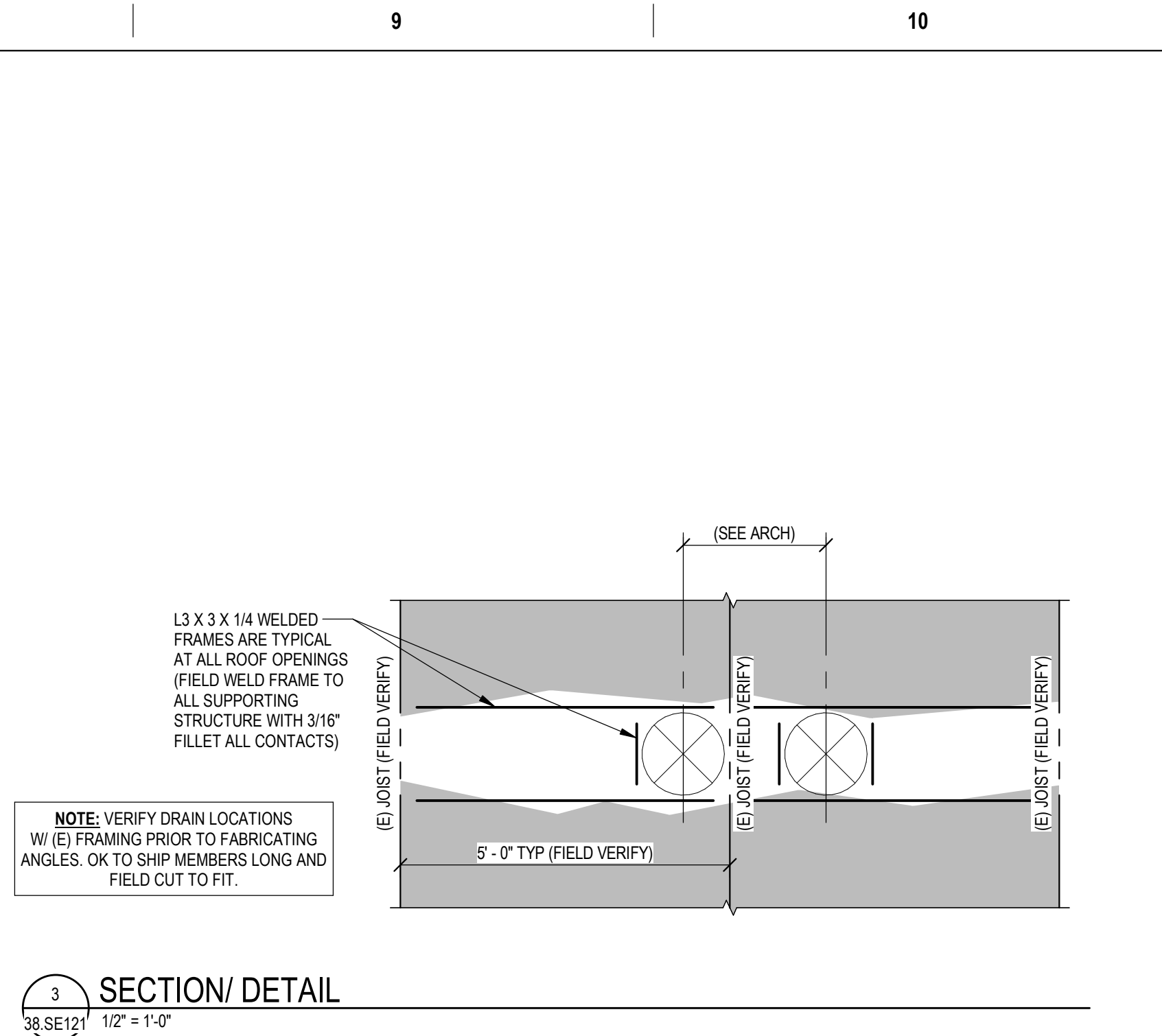
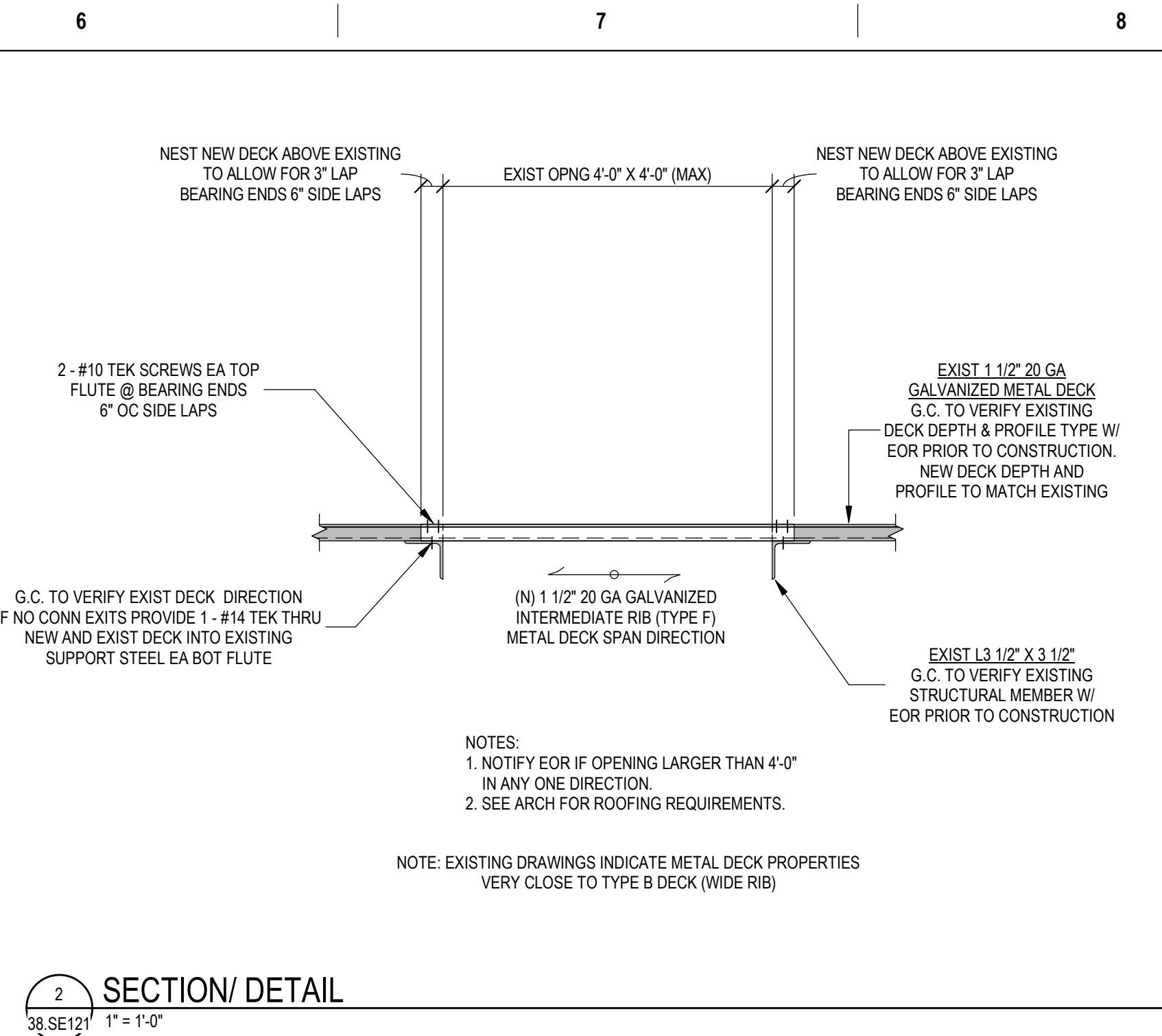
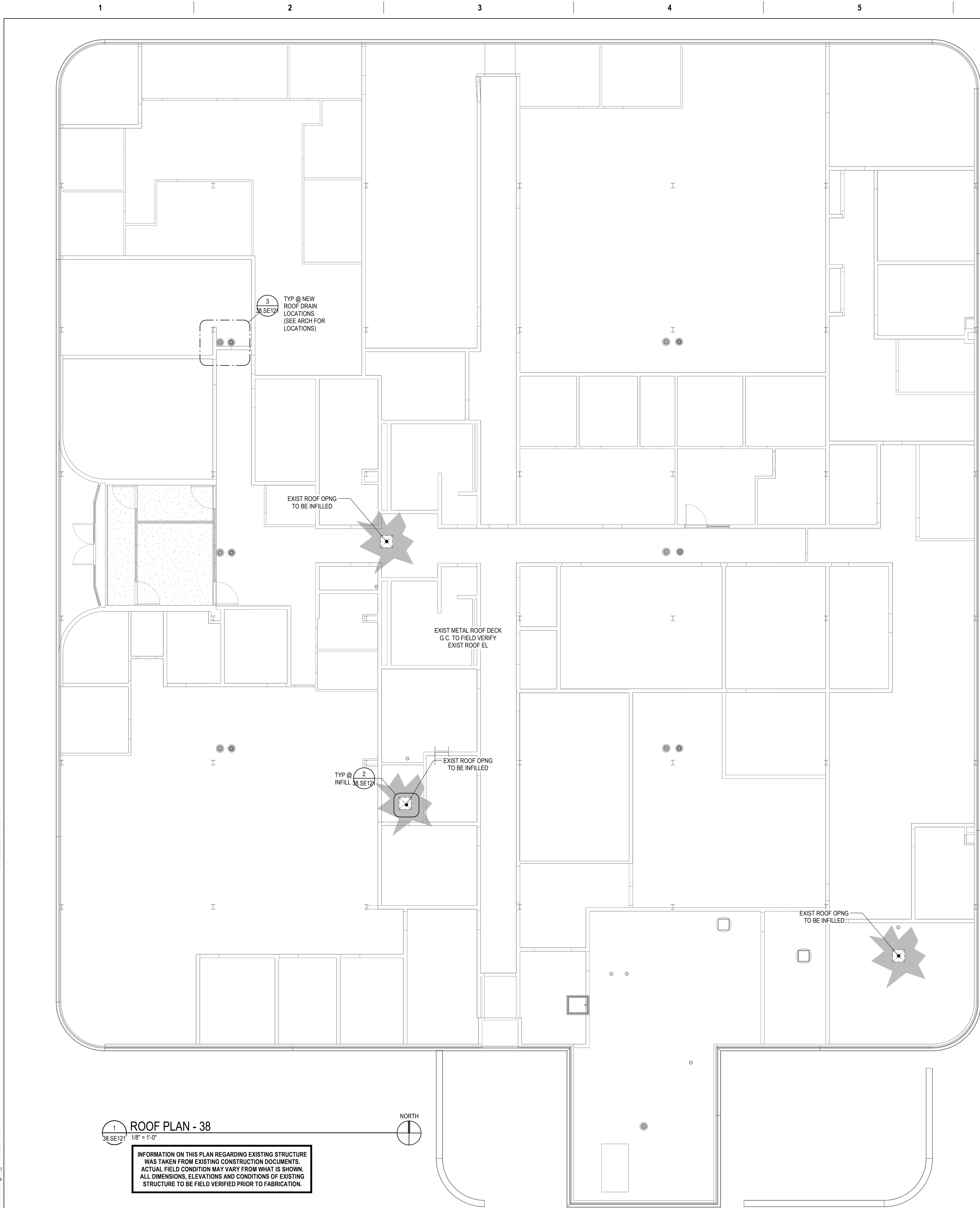
Project Number
VA #VA #438-22-600
SGA #221926

Building Number
17

Drawing Number
17.MEP121

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Revision #	Description	Date:

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Phone: 605-271-1144

STAMP

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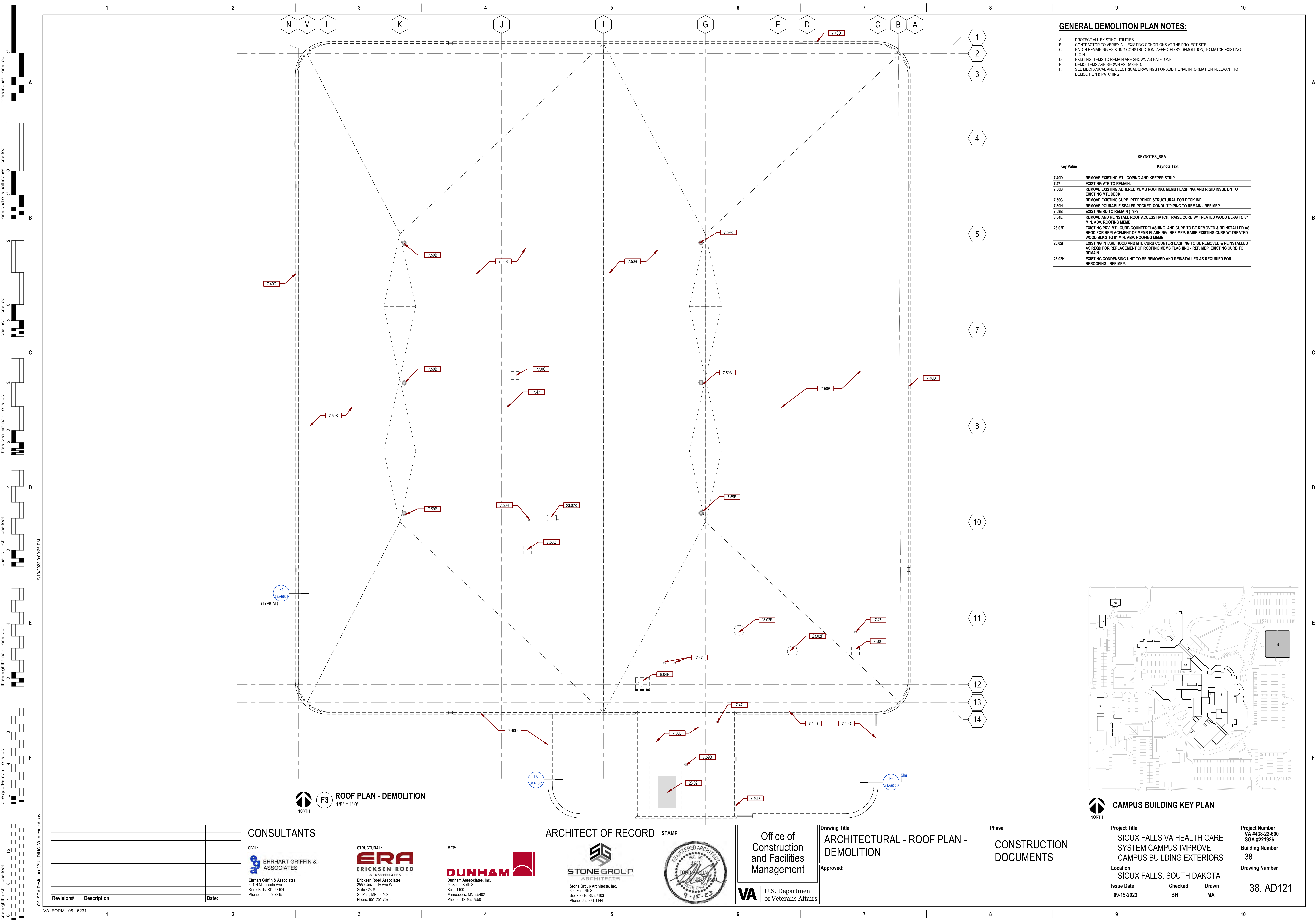
Office of Construction and Facilities Management

Drawing Title
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Approved:

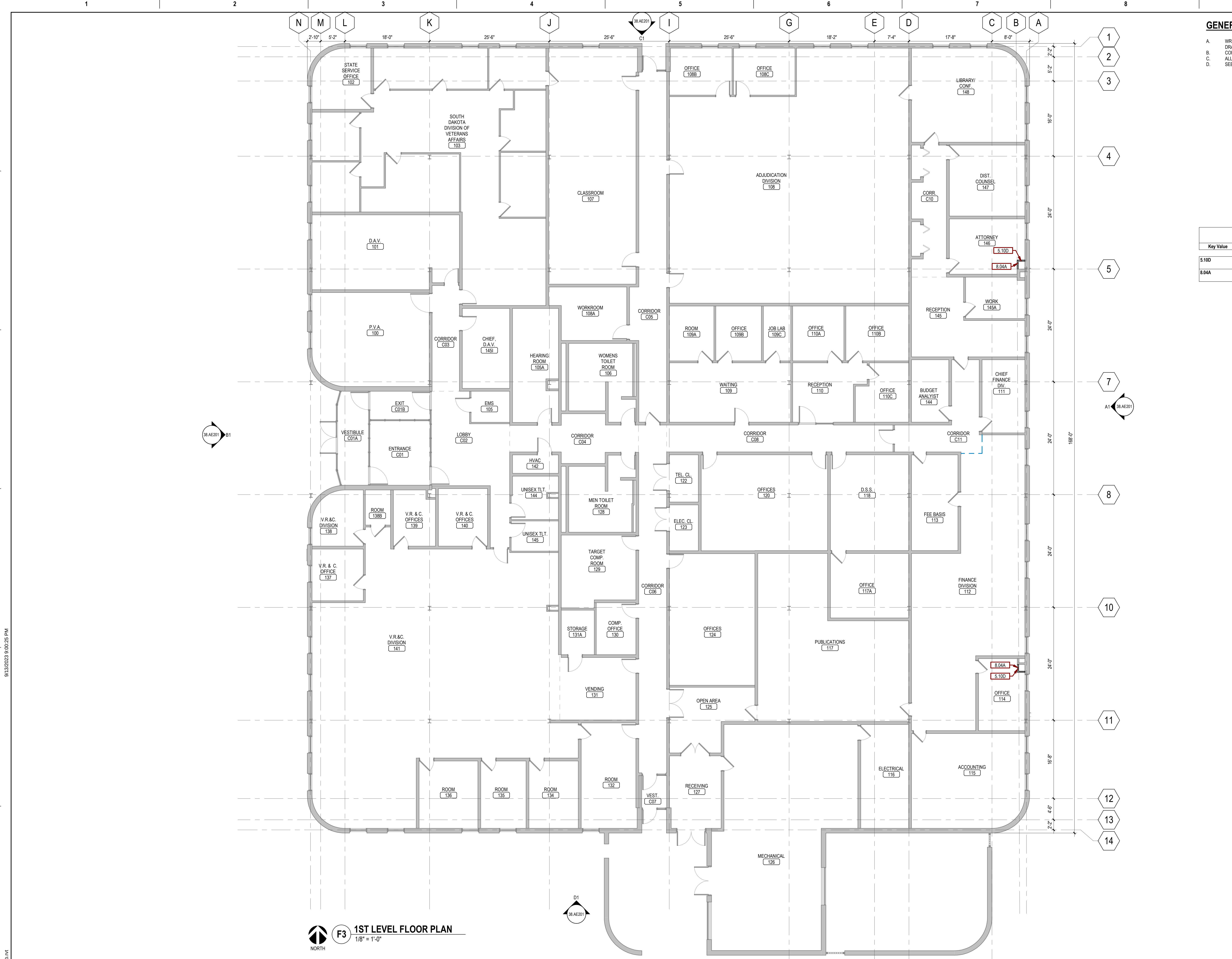
Phase
CONSTRUCTION DOCUMENTS
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Project Title
SIOUX FALLS VA HEALTH CARE SYSTEM CAMPUS IMPROVE CAMPUS BUILDING EXTERIORS
Location
SIOUX FALLS, SOUTH DAKOTA
Issue Date
09-15-2023
Checked
TDN
Drawn
CS/MJD

Project Number
VA #438-22-600
ERA #20221954
Building Number
38
Drawing Number
38.SE121



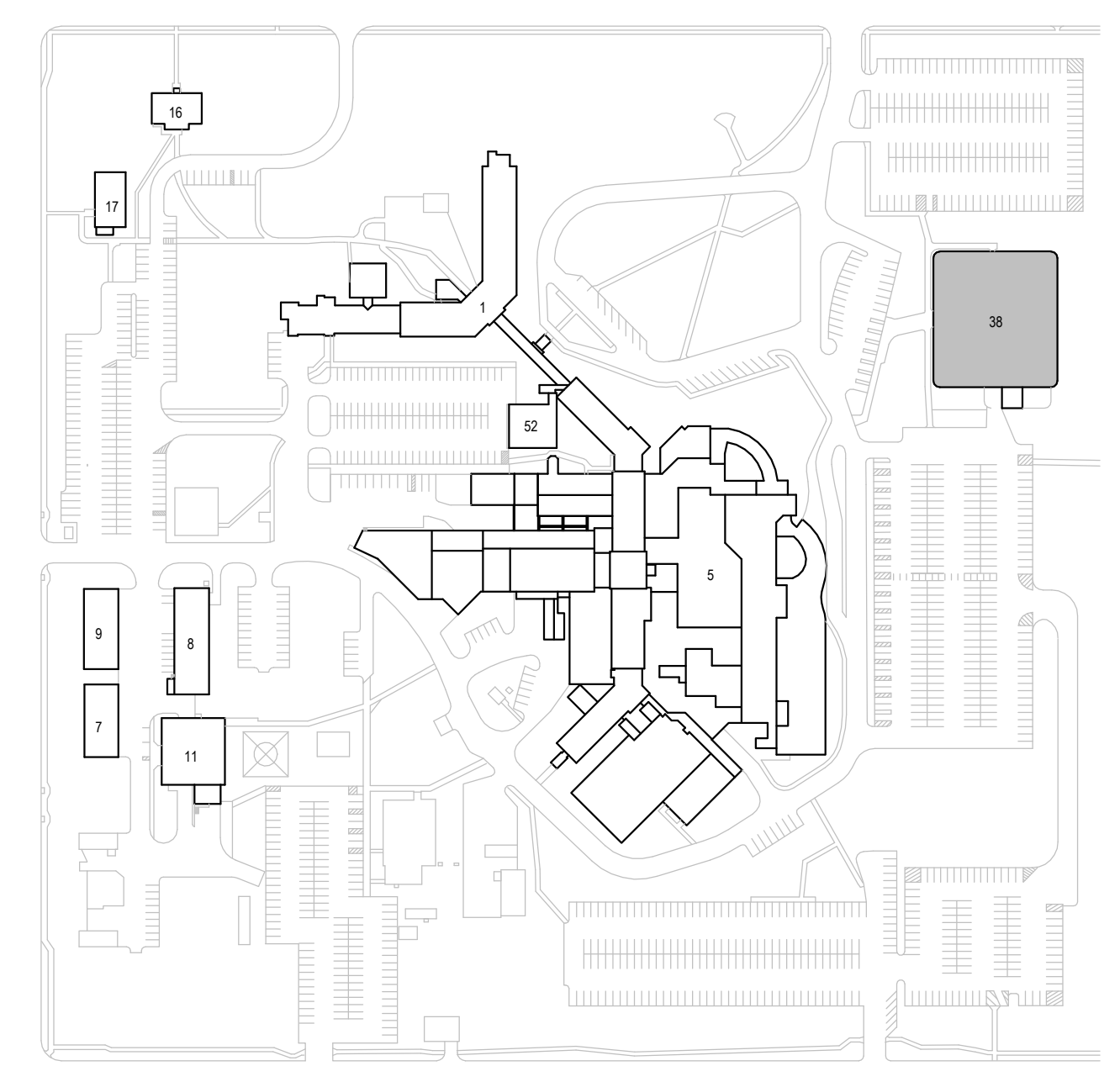
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three inches = one foot



GENERAL FLOOR PLAN NOTES:

A. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS.
B. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AT THE PROJECT SITE.
C. ALL DIMENSIONS ARE TO OUTSIDE OF WALL FRAMING.
D. SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

KEYNOTES_SGA	
Key Value	Keynote Text
5.100	EXTEND EXISTING CHASE W/ 5/8" GYP BD. ON 2 1/2" MTL STUD FRAMING TO 6" ABV FIN CEILING. PAINT WALLS TO MATCH EXISTING. INSTALL VINYL BASE TO MATCH EXISTING.
8.04A	12" X 12 FLUSH ACCESS PANEL. PAINT TO MATCH WALL. COORD FINAL LOCATION WITH MECH.



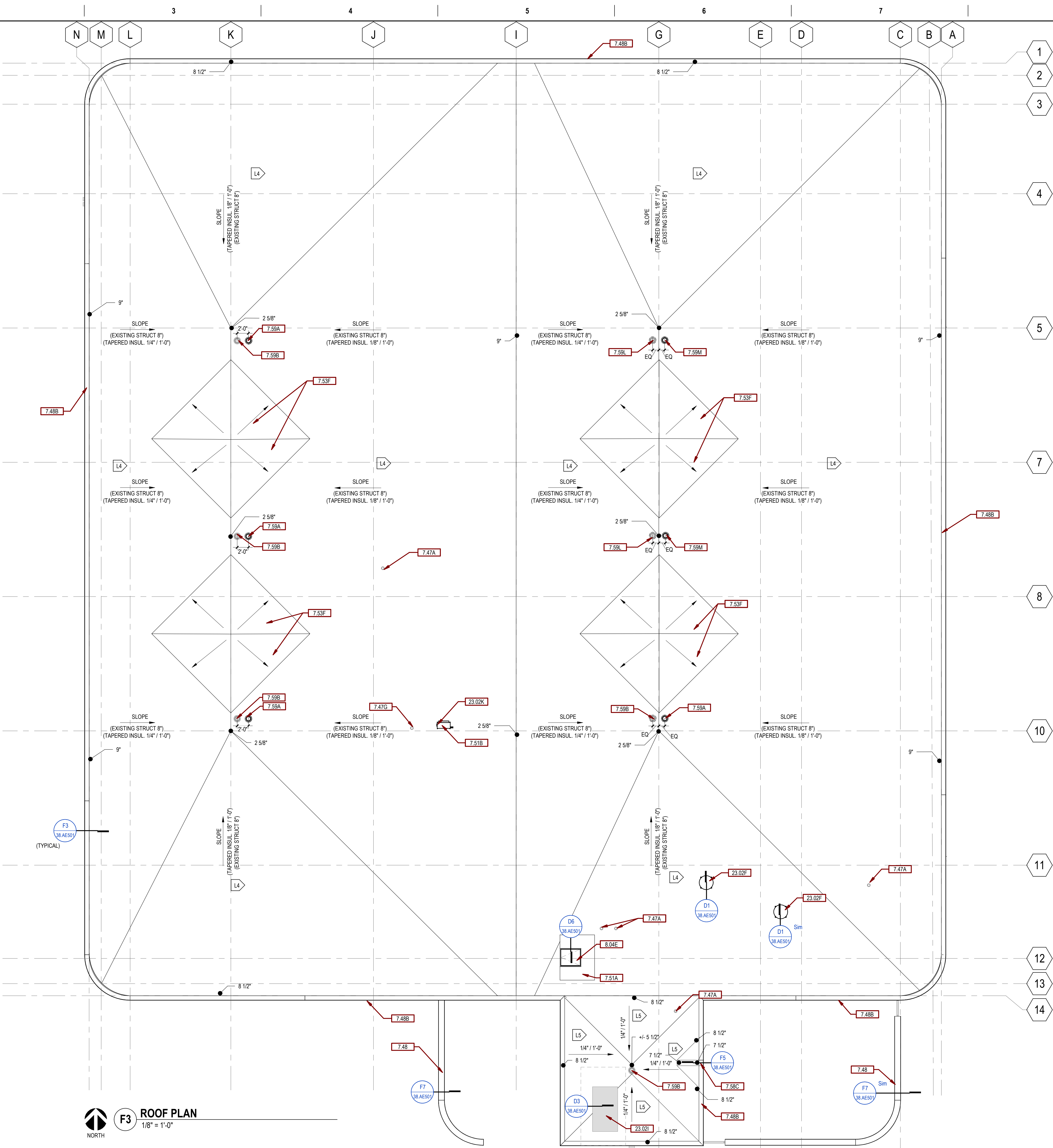
CAMPUS BUILDING KEY PLAN	
Project Title SIOUX FALLS VA HEALTH CARE SYSTEM CAMPUS IMPROVE CAMPUS BUILDING EXTERIORS	
Location SIOUX FALLS, SOUTH DAKOTA	
Issue Date 09-15-2023	Checked BH
Drawn MA	
Project Number VA #438-22-600 SGA #221926 Building Number 38	
Drawing Number 38. AE101	

CONSULTANTS		ARCHITECT OF RECORD		Office of Construction and Facilities Management		ARCHITECTURAL - FLOOR PLAN		CONSTRUCTION DOCUMENTS		Project Title SIOUX FALLS VA HEALTH CARE SYSTEM CAMPUS IMPROVE CAMPUS BUILDING EXTERIORS		Project Number VA #438-22-600 SGA #221926 Building Number 38	
CIVIL: EHRHART GRIFFIN & ASSOCIATES 601 N Minnesota Ave Sioux Falls, SD 57104 Phone: 605-339-7215		STRUCTURAL: ERA ERICKSEN ROED & ASSOCIATES 2550 University Ave W Suite 423-S St. Paul, MN 55402 Phone: 651-251-7570		MEP: DUNHAM Dunham Associates, Inc. 50 South Sixth St Suite 1100 Minneapolis, MN 55402 Phone: 612-465-7550		STONE GROUP ARCHITECTS Stone Group Architects, Inc. 600 East 7th Street Sioux Falls, SD 57103 Phone: 605-271-1144		Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs		Approved:		Issue Date 09-15-2023	
Revision#		Description		Date:									

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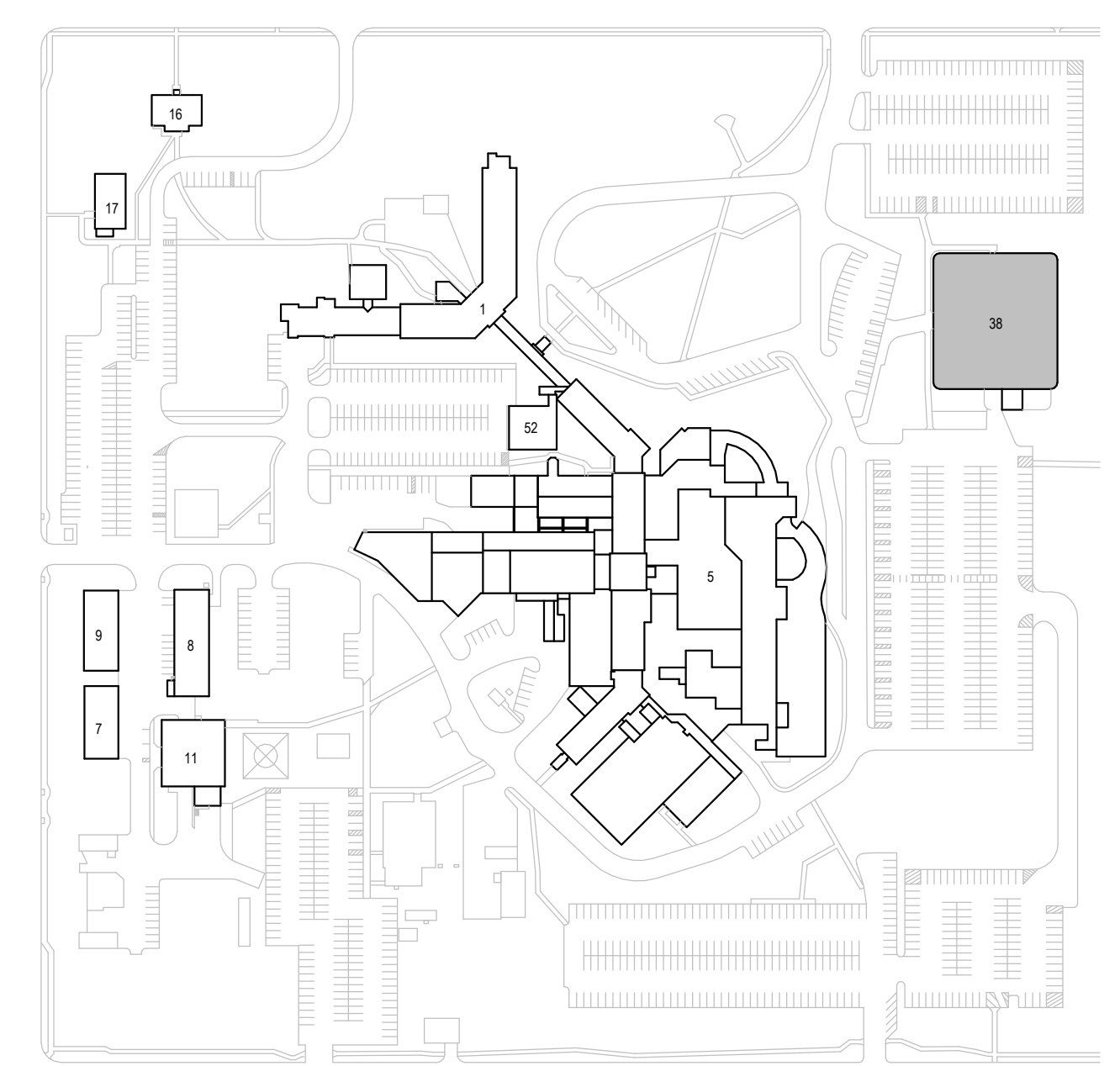
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GENERAL ROOF NOTES:

A. PROVIDE SEALANT AT ALL INTERIOR AND EXTERIOR JOINTS BETWEEN DIFFERENT MATERIALS, TRANSITIONS, AND ACCORDING TO INDUSTRY STANDARDS AND MANUFACTURERS SPECIFICATIONS.

KEYNOTES_SGA	
Key Value	Keynote Text
7.47A	EXISTING VTR. PROVIDE PRE-FAB ROOFING MEMBRANE BOOT FLASHING.
7.47G	EXISTING CONDUIT/PIPING - PROVIDE POURABLE SEALER POCKET FLASHING.
7.48	PREFINISHED MTL COPING AND KEEPER STRIP.
7.48B	PREFINISHED MTL GRAVEL STOP AND CONT KEEPER STRIP.
7.51A	ADHERED MEMB WALKWAY PROTECTION PADS.
7.51B	ADHERED MEMB WALKWAY PROTECTION PADS UNDER MECH UNIT SLEEPERS.
7.53F	10" WIDE TAPERED ISO RIGID INSUL CRICKETS - 12" x 12".
7.58C	PREFINISHED MTL CHANNEL OVERFLOW SCUPPER
7.59A	NEW ORD W/ 2" COLLAR (TOP OF COLLAR TO BE 2" ABOVE PRIMARY DRAIN RIM)
7.59B	EXISTING RD TO REMAIN (TYP)
7.59L	EXISTING RD AND PIPING CONVERTED TO ORD - REF. MECH.
7.59M	NEW RD AND PIPING - REF. MECH.
8.04E	REMOVE AND REINSTALL ROOF ACCESS HATCH. RAISE CURB W/ TREATED WOOD BLKG TO 8" MIN. ABV. ROOFING MEMB.
23.02F	EXISTING PRIV. MTL CURB COUNTERFLASHING, AND CURB TO BE REMOVED & REINSTALLED AS REQD FOR REPLACEMENT OF MEMB FLASHING - REF. MEP. RAISE EXISTING CURB W/ TREATED WOOD BLKG TO 8" MIN. ABV. ROOFING MEMB.
23.02I	EXISTING INTAKE HOOD AND MTL CURB COUNTERFLASHING TO BE REMOVED & REINSTALLED AS REQD FOR REPLACEMENT OF ROOFING MEMB FLASHING - REF. MEP. EXISTING CURB TO REMAIN.
23.02K	EXISTING CONDENSING UNIT TO BE REMOVED AND REINSTALLED AS REQUIRED FOR REROOFING - REF. MEP.



CAMPUS BUILDING KEY PLAN

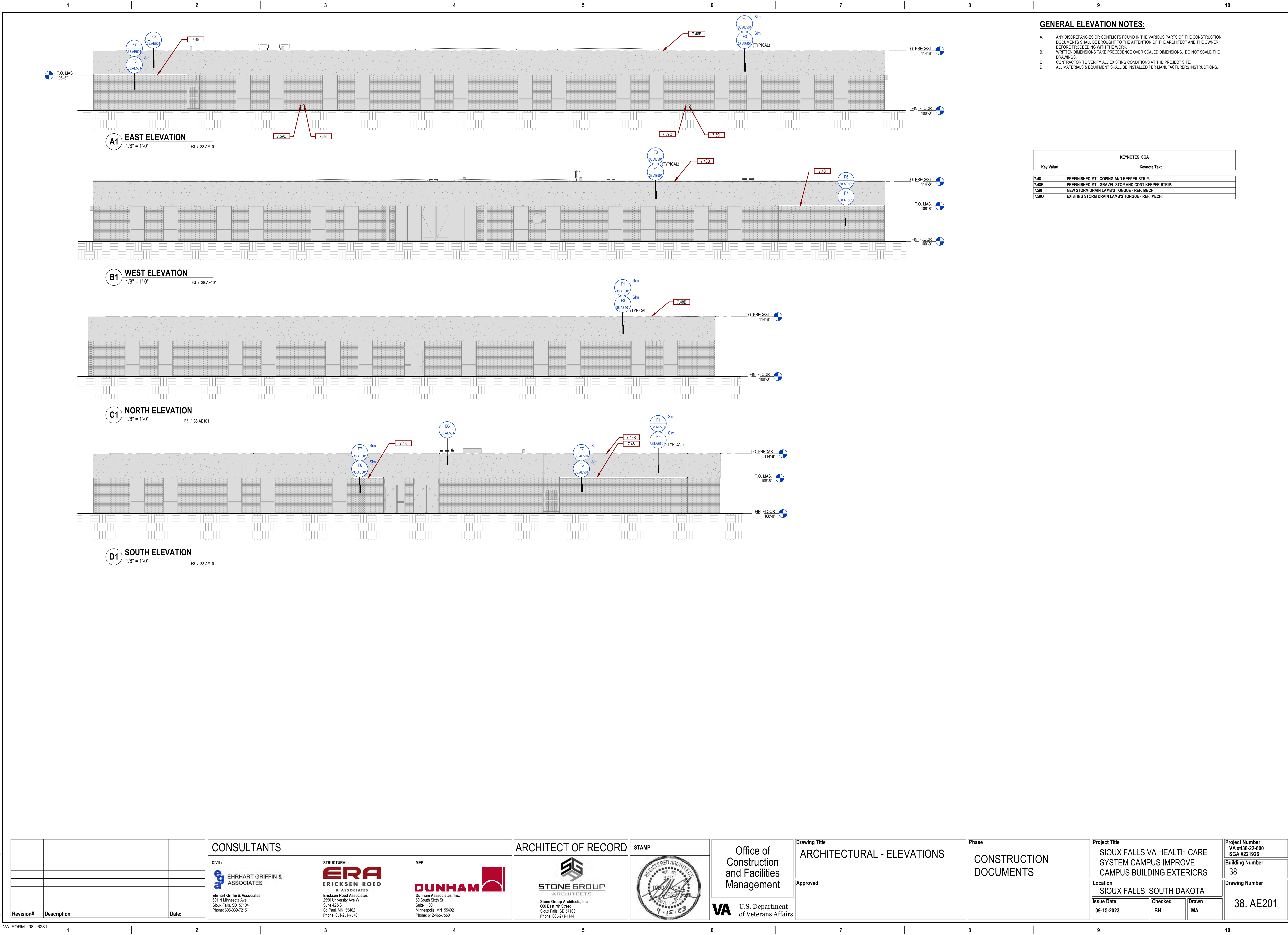
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SIOUX FALLS VA HEALTH CARE SYSTEM CAMPUS IMPROVE CAMPUS BUILDING EXTERIORS		VA #438-22-600 SGA #221926	
Location		Building Number	
SIOUX FALLS, SOUTH DAKOTA		38	
Issue Date	Checked	Drawn	Drawing Number
09-15-2023	BH	MA	38. AE121

CONSULTANTS			ARCHITECT OF RECORD		STAMP		Office of Construction and Facilities Management		Drawing Title		Phase		Project Title		Project Number	
CIVIL: EHRHART GRIFFIN & ASSOCIATES			STRUCTURAL: ERA ERICKSEN ROED		MEP: DUNHAM		Stone Group Architects, Inc.		ARCHITECTURAL - ROOF PLAN		CONSTRUCTION DOCUMENTS		SIOUX FALLS VA HEALTH CARE SYSTEM CAMPUS IMPROVE CAMPUS BUILDING EXTERIORS		VA #438-22-600 SGA #221926	
Ehrhart Griffin & Associates 601 N Minnesota Ave Sioux Falls, SD 57104 Phone: 605-339-7215			Ericksen Roed Associates 2550 University Ave W Suite 423-S St. Paul, MN 55402 Phone: 651-465-7570		Dunham Associates, Inc. 50 South Sixth St Suite 1100 Minneapolis, MN 55402 Phone: 612-465-7550		Stone Group Architects, Inc. 600 East 7th Street Sioux Falls, SD 57103 Phone: 605-271-1144		U.S. Department of Veterans Affairs						Building Number 38	
Revision# Description Date:									Approved:				Issue Date 09-15-2023		Drawing Number 38. AE121	

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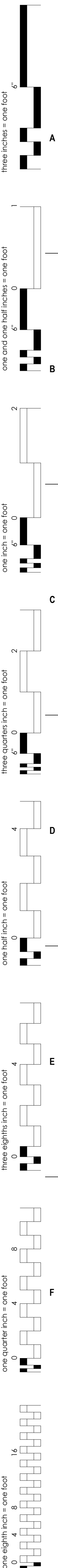
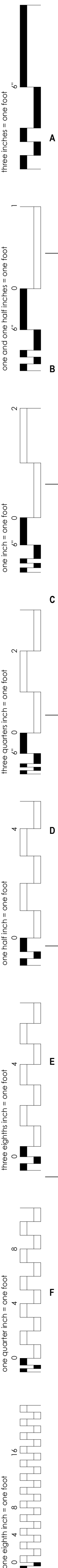
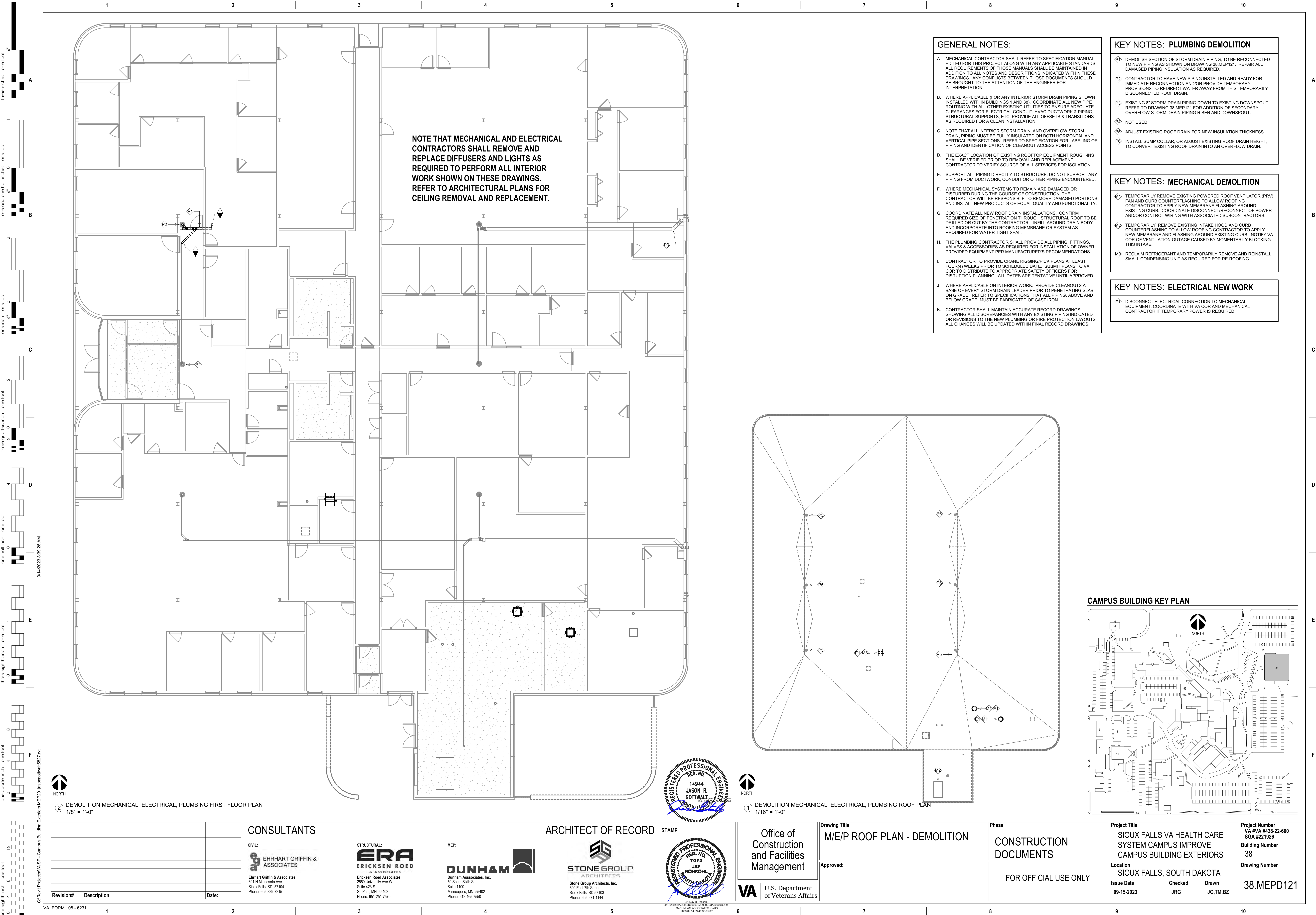


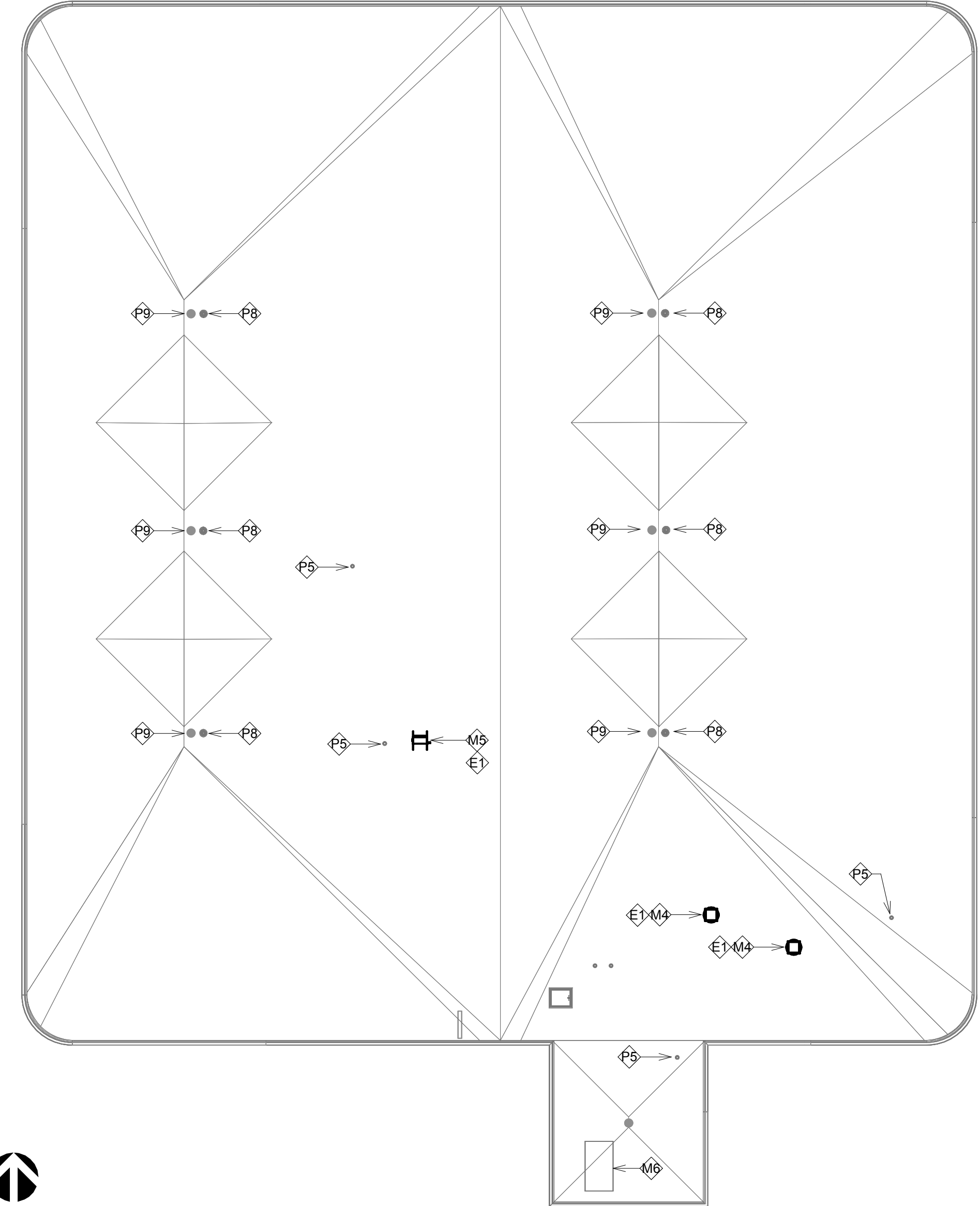
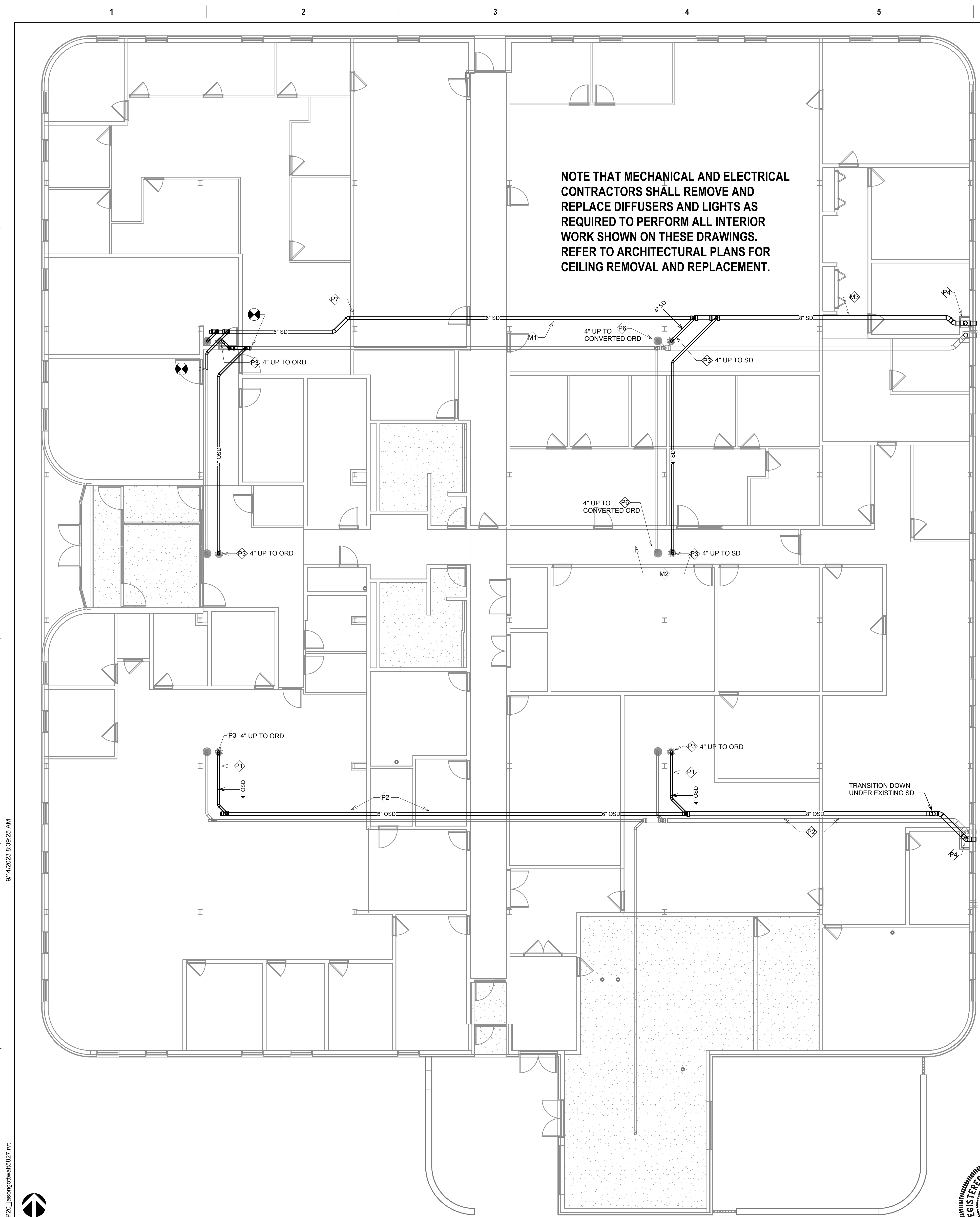
Figure 1 consists of three schematic diagrams labeled A, B, and C, illustrating the experimental design for three different conditions. Each diagram shows a timeline and a corresponding bar chart.

- Diagram A:** The timeline is labeled "6" and "one and one half inches = one foot". The bar chart shows a single bar of height 1, representing one foot of activity.
- Diagram B:** The timeline is labeled "6" and "one inch = one foot". The bar chart shows a single bar of height 2, representing one inch of activity.
- Diagram C:** The timeline is labeled "6" and "three quarters inch = one foot". The bar chart shows a single bar of height 4, representing three quarters of an inch of activity.





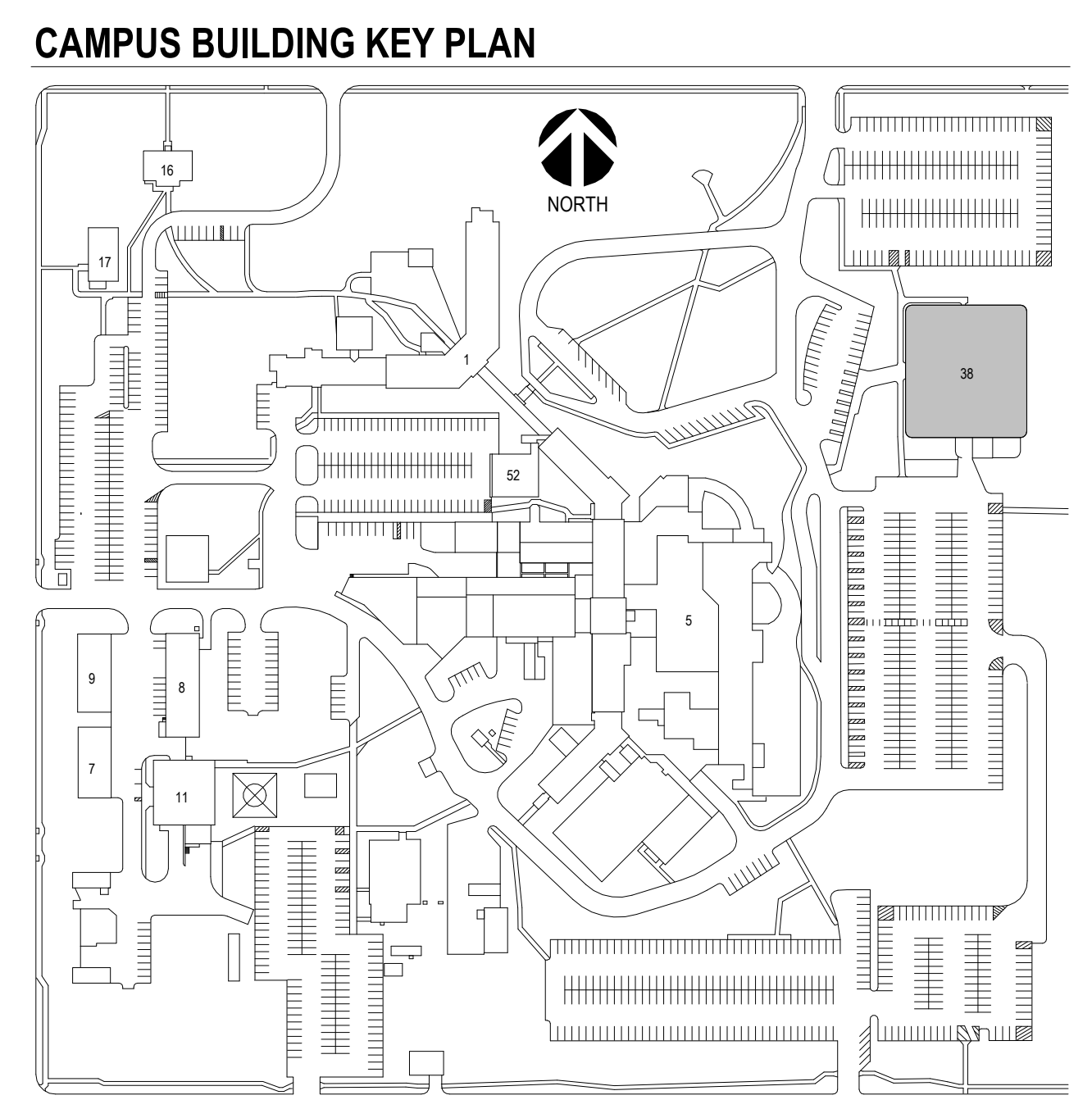
three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



- GENERAL NOTES:**
- MECHANICAL CONTRACTOR SHALL REFER TO SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.
 - WHERE APPLICABLE (FOR ANY INTERIOR STORM DRAIN PIPING SHOWN INSTALLED WITHIN BUILDINGS 5 AND 38). COORDINATE ALL NEW PIPE ROUTING WITH ALL OTHER EXISTING UTILITIES TO ENSURE ADEQUATE CLEARANCES FOR ELECTRICAL CONDUIT, HVAC DUCTWORK & PIPING, STRUCTURAL SUPPORTS, ETC. PROVIDE ALL OFFSETS & TRANSITIONS AS REQUIRED FOR A CLEAN INSTALLATION.
 - NOTE THAT ALL INTERIOR STORM DRAIN, AND OVERFLOW STORM DRAIN, PIPING MUST BE FULLY INSULATED ON BOTH HORIZONTAL AND VERTICAL PIPE SECTIONS. REFER TO SPECIFICATION FOR LABELING OF PIPING AND IDENTIFICATION OF CLEANOUT ACCESS POINTS.
 - THE EXACT LOCATION OF EXISTING ROOFTOP EQUIPMENT ROUGH-INS SHALL BE VERIFIED PRIOR TO REMOVAL AND REPLACEMENT. CONTRACTOR TO VERIFY SOURCE OF ALL SERVICES FOR ISOLATION.
 - SUPPORT ALL PIPING DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY PIPING FROM DUCTWORK, CONDUIT OR OTHER PIPING ENCOUNTERED.
 - WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED OR DISTURBED DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.
 - COORDINATE ALL NEW ROOF DRAIN INSTALLATIONS. CONFIRM REQUIRED SIZE OF PENETRATION THROUGH STRUCTURAL ROOF TO BE DRILLED OR CUT BY THE CONTRACTOR. INFILL AROUND DRAIN BODY AND INCORPORATE INTO ROOFING MEMBRANE OR SYSTEM AS REQUIRED FOR WATER TIGHT SEAL.
 - THE PLUMBING CONTRACTOR SHALL PROVIDE ALL PIPING, FITTINGS, VALVES & ACCESSORIES AS REQUIRED FOR INSTALLATION OF OWNER PROVIDED EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS.
 - CONTRACTOR TO PROVIDE CRANE RIGGING/PICK PLANS AT LEAST FOUR(4) WEEKS PRIOR TO SCHEDULED DATE. SUBMIT PLANS TO VA COR TO DISTRIBUTE TO APPROPRIATE SAFETY OFFICERS FOR DISRUPTION PLANNING. ALL DATES ARE TENTATIVE UNTIL APPROVED.
 - WHERE APPLICABLE ON INTERIOR WORK. PROVIDE CLEANOUTS AT BASE OF EVERY STORM DRAIN LEADER PRIOR TO PENETRATING SLAB ON GRADE. REFER TO SPECIFICATIONS THAT ALL PIPING, ABOVE AND BELOW GRADE, MUST BE FABRICATED OF CAST IRON.
 - CONTRACTOR SHALL MAINTAIN ACCURATE RECORD DRAWINGS SHOWING ALL DISCREPANCIES WITH ANY EXISTING PIPING INDICATED OR REVISIONS TO THE NEW PLUMBING OR FIRE PROTECTION LAYOUTS. ALL CHANGES WILL BE UPDATED WITHIN FINAL RECORD DRAWINGS.
- KEY NOTES: PLUMBING NEW WORK**
- NOTE THAT ALL BRANCH PIPING TO/FROM MAIN DRAIN SHALL BE ROUTED AS HIGH AS POSSIBLE UP WITHIN JOIST SPACE. TRANSITION DOWN AND CONNECT TO TOP OF MAIN STORM OR OVERFLOW, DRAIN PIPING FROM TOP WHERE POSSIBLE.
 - ROUTE NEW OVERFLOW DRAIN PIPING ADJACENT TO EXISTING STORM DRAIN MAIN PIPE. NOTE THAT THERE IS EXISTING CABLE TRAY ON OPPOSITE SIDE OF PIPE MAIN THAT MAY NEED TO ADJUST OR RESUPPORT LOW VOLTAGE WIRING TO/FROM TRAY. DO NOT ALLOW ANY EXISTING LOW VOLTAGE AND/OR FIRE ALARM WIRING TO TOUCH, OR BE SUPPORTED FROM, ANY STORM DRAIN PIPING. REFER TO ARCHITECTURAL PLANS FOR REMOVAL AND REINSTALLATION OF CEILING SYSTEMS AS REQUIRED TO PERFORM WORK INDICATED.
 - 4" OVERFLOW DRAIN UP TO NEW STORM DRAIN (OR ORD) ABOVE. REFER TO DRAWING 1/38.MEP121 FOR CONTINUATION.
 - ROUTE 8" OVERFLOW OR STORM DRAIN PIPE MAIN DOWN EXTERIOR WALL OF BUILDING, ADJACENT TO EXISTING STORM DRAIN RISER. EXTEND STORM DRAIN OUT THROUGH WALL AND TERMINATE WITH DOWNSPOUT NOZZLE, ZURN Z189-SS, WITH STAINLESS STEEL BIRD SCREEN. INSTALL DOWNSPOUT NOZZLE AT SAME ELEVATION AS THE ADJACENT EXISTING STORM DRAIN DOWNSPOUT, AND MATCH MATERIAL/FINISH AS CLOSE AS POSSIBLE. REFER TO ARCH PLANS FOR MODIFICATION OF PLUMBING CHASE TO CONCEAL ALL PIPING AND FITTINGS WITHIN BUILDING. ASSIST DRYWALL/FRAMING CONTRACTOR TO PROVIDE CHASE WITH ACCESS DOOR FOR PERIODIC INSPECTION. ALIGN WITH CLEANOUT AT BASE OF RISER.
 - EXTEND EXISTING VENT THROUGH ROOF TO ALLOW FOR A MINIMUM OF 8" FLASHING WHILE NEW ROOFING WORK IS PERFORMED.
 - NOTE THAT EXISTING STORM DRAIN TO BE CONVERTED TO OVERFLOW BY ADJUSTING MOUNTING HEIGHT AND/OR ADDING SUMP COLLAR. REFER TO ROOF PLAN ON THIS DRAWING. DISCONNECT EXISTING DRAIN FOR CURRENT STORM MAIN AND CONNECT INTO NEW OVERFLOW PIPING MAIN AS INDICATED.
 - OFFSET STORM DRAIN PIPING AS REQUIRED TO GET WITHIN TIGHT CEILING PLENUM CONDITION BETWEEN EXISTING DUCTWORK AND COLUMN. RED-LINE DRAWINGS WITH AS-BUILT CONDITION.
 - PROVIDE NEW ROOF DRAIN, JOSAM MODEL 21500-AE-03-23, OR EQUAL WITH DECK CLAMP AND RECEIVER (43) AND ROUGH BRONZE DOME (-23). COORDINATE PENETRATION OF METAL DECK ROOF STRUCTURE AS REQUIRED. NOTE THAT OVERFLOW DRAINS SHALL ALSO BE PROVIDED WITH 2" EXTENSION COLLARS (-17). REFER TO NOTES ON FIRST FLOOR PLUMBING DRAWING FOR NEW OVERFLOW DRAIN LOCATIONS.
 - EXISTING DRAINS SHALL HAVE EXISTING DOMES REPLACED WITH BRONZE DOMES (-23) TO MATCH NEW ROOF DRAINS. VERIFY FIT WITH CURRENT MANUFACTURER MODEL. ALSO PROVIDE 2" EXTENSION COLLARS (-17) FOR DRAINS TO BE CONVERTED TO OVERFLOW. REFER TO NOTES ON FIRST FLOOR PLUMBING DRAWINGS.

- KEY NOTES: MECHANICAL / FIRE SPRINKLER**
- EXISTING DUCT TAKE-OFF NEAR THIS LOCATION MAY REQUIRE SLIGHT SHIFTING OR MODIFICATION TO ALLOW STORM DRAIN PIPING TO CONTINUE IN A STRAIGHT PATH.
 - NOTE THAT A SECTION OF DUCTWORK (APPROXIMATELY 96" IN LENGTH BETWEEN SLIP JOINTS) SHALL BE REQUIRED TO BE REMOVED AND REPLACED TO GAIN ACCESS NEEDED FOR ROOF DRAIN INSTALLATION ABOVE THIS AREA OF CORRIDOR. REFER TO ARCHITECTURAL PLANS FOR ASSOCIATED CEILING REMOVAL AND REPLACEMENT. RE-SEAL AND REINSULATE AFFECTED AREAS OF DUCTWORK UPON COMPLETION AND REPLACEMENT OF DUCT. COORDINATE SCHEDULE FOR BLOCKAGE OF THIS CORRIDOR WITH VA COR A MINIMUM OF 2 WEEKS IN ADVANCE.
 - MODIFY EXISTING SPRINKLER BRANCH PIPING IN THIS AREA FOR ROUTING NEW STORM DRAIN PIPING MAIN AS REQUIRED.
 - REINSTALL PRV FAN WITH CURB COUNTERFLASHING AND SEAL AIRTIGHT TO CURB. RECONNECT POWER AND CONTROL WIRING AND PERFORM START-UP TESTING FOR PROPER PERFORMANCE.
 - REINSTALL PREVIOUSLY REMOVED SMALL CONDENSING UNIT ALONG WITH ANY ASSOCIATED RECLAIMED REFRIGERANT. PERFORM START-UP SERVICE TESTING FOR FUNCTIONALITY AND SUBMIT REPORT TO ENGINEER.
 - REINSTALL INTAKE HOOD WITH CURB COUNTERFLASHING AND SEAL AIRTIGHT. REFER TO DEMOLITION DRAWING FOR COORDINATION OF ANY ASSOCIATED HVAC OUTAGES RESULTING FROM THIS REMOVAL/REPLACEMENT.

- KEY NOTES: ELECTRICAL NEW WORK**
- RECONNECT ELECTRICAL CONNECTION TO MECHANICAL EQUIPMENT. MODIFY EXISTING FEEDER AS REQUIRED.



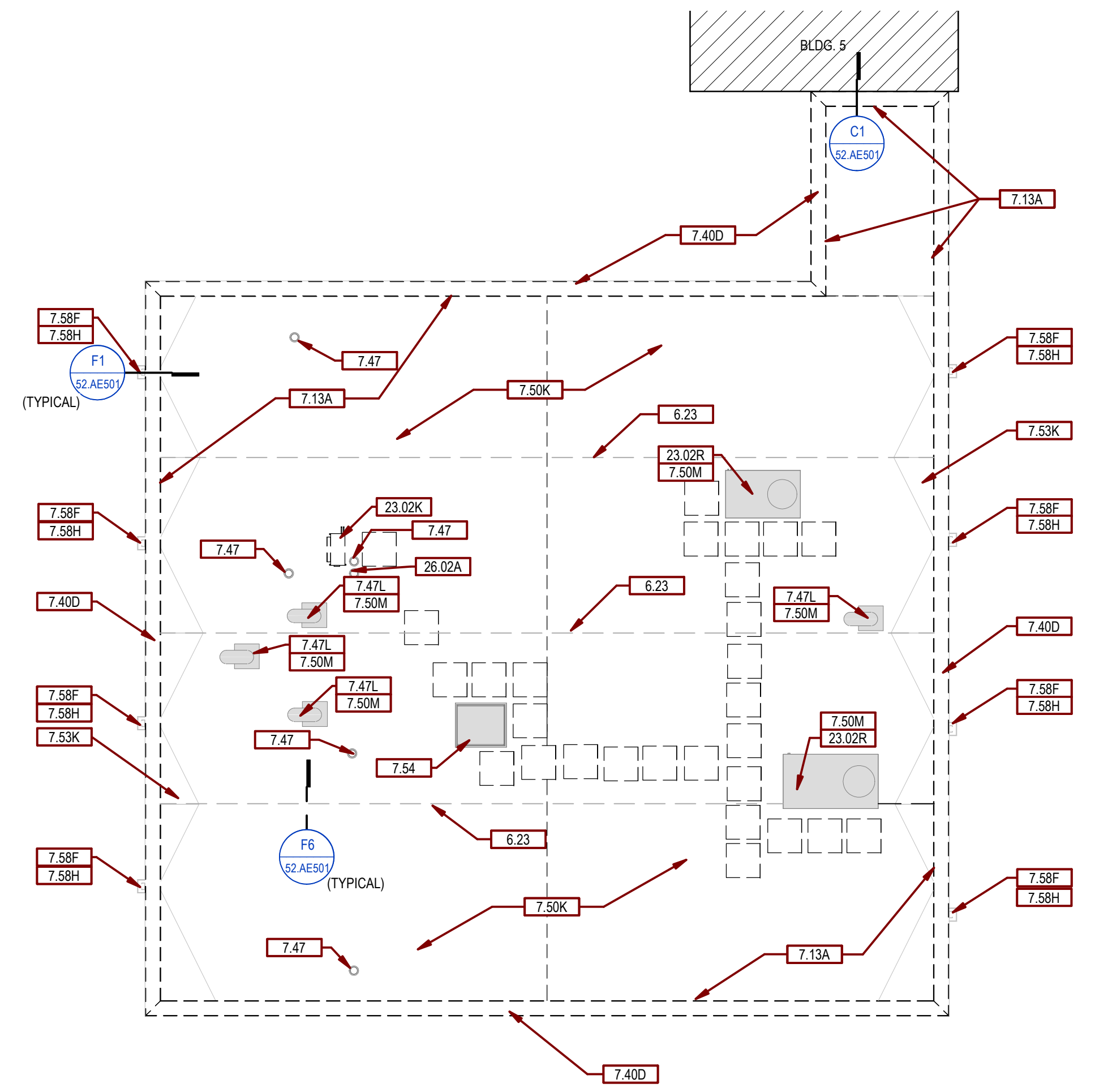
2 MECHANICAL, ELECTRICAL, PLUMBING FIRST FLOOR PLAN
1/8" = 1'-0"

1 MECHANICAL, ELECTRICAL, PLUMBING ROOF PLAN
1/16" = 1'-0"

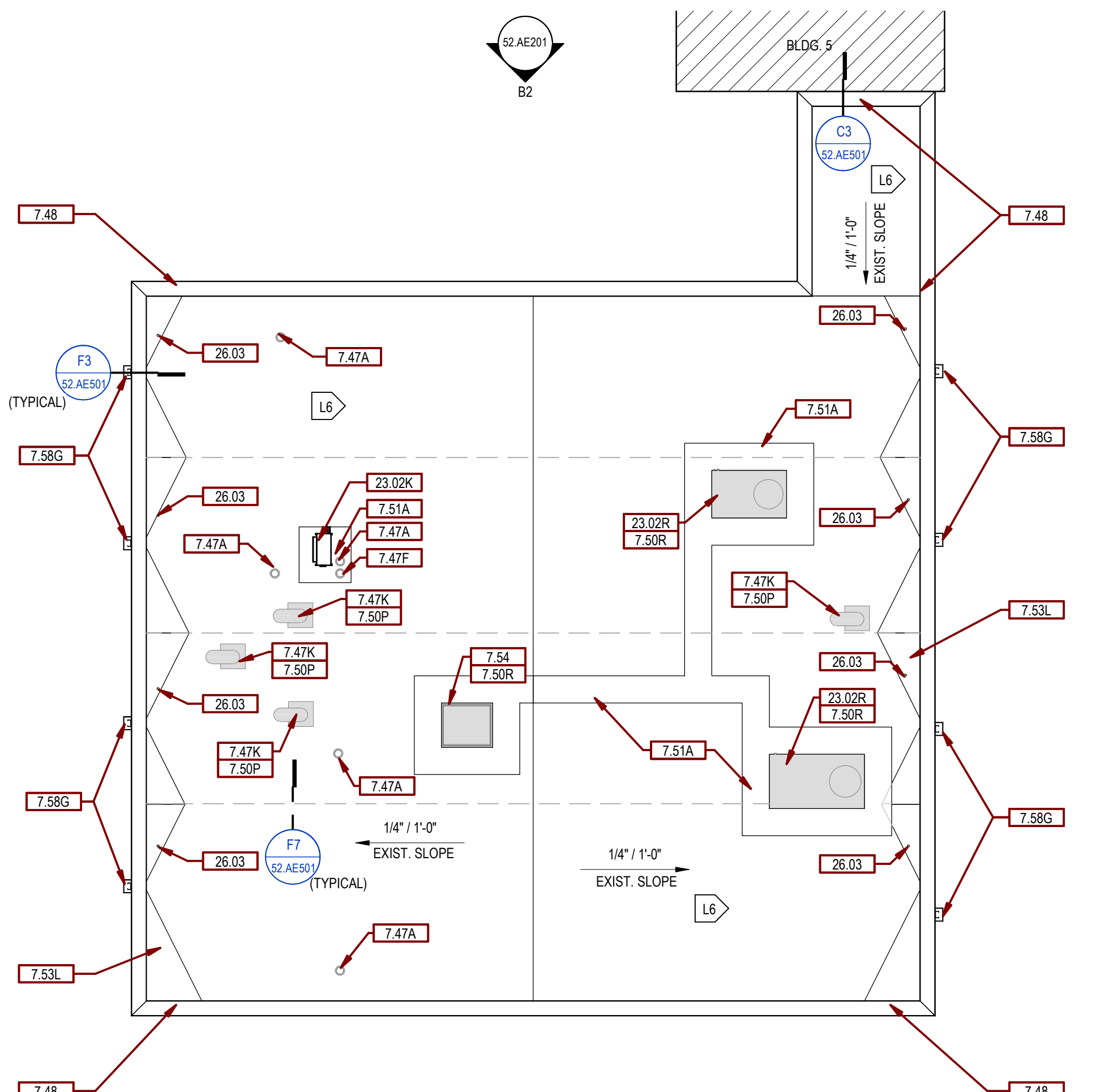
CONSULTANTS		ARCHITECT OF RECORD		STAMP		Office of Construction and Facilities Management		Drawing Title		Phase		Project Title		Project Number			
CIVIL: EHRHART GRIFFIN & ASSOCIATES Ehrhart Griffin & Associates 601 N Minnesota Ave Sioux Falls, SD 57104 Phone: 605-339-7215		STRUCTURAL: ERA ERICKSEN ROED & ASSOCIATES Ericksen Roed Associates 2550 University Ave W Suite 1100 St. Paul, MN 55402 Phone: 651-251-7570		MEP: DUNHAM Dunham Associates, Inc. 50 South Sixth St Suite 1100 Minneapolis, MN 55402 Phone: 612-465-7550		STONE GROUP ARCHITECTS Stone Group Architects, Inc. 600 East 7th Street Sioux Falls, SD 57103 Phone: 605-271-1144		Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs		M/E/P ROOF PLAN		CONSTRUCTION DOCUMENTS		SIoux FALLS VA HEALTH CARE SYSTEM CAMPUS IMPROVE CAMPUS BUILDING EXTERIORS		VA #VA #438-22-600 SGA #221926	
Revision# Description Date:								Approved:		FOR OFFICIAL USE ONLY		Location SIoux FALLS, SOUTH DAKOTA		Drawing Number 38.MEP121			
												Issue Date 09-15-2023		Checked JRG			
												Drawn JG,TM,BZ					

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

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D3 ROOF PLAN - DEMOLITION
1/8" = 1'-0"
NORTH

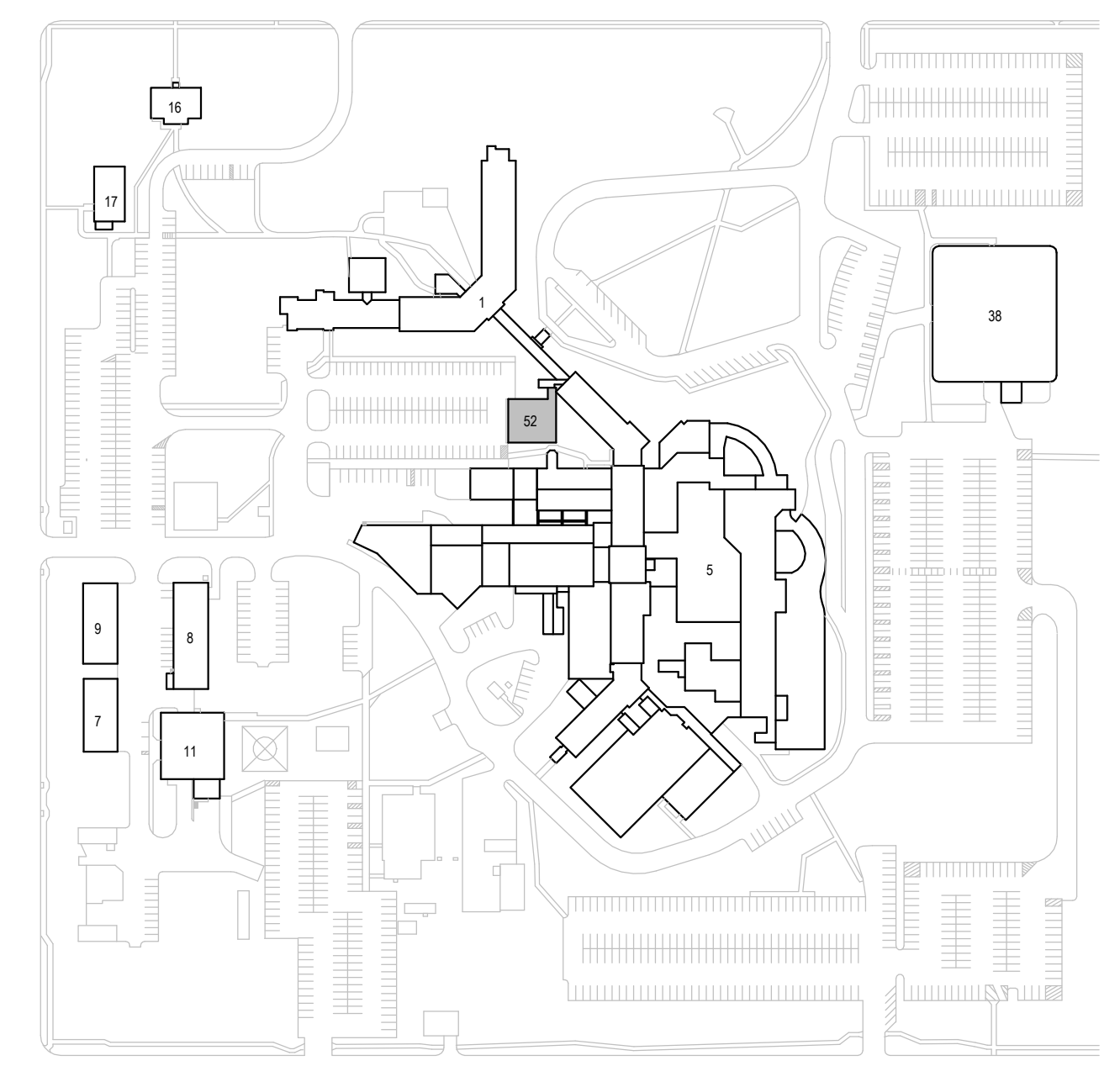


D6 ROOF PLAN
1/8" = 1'-0"
NORTH

- GENERAL DEMOLITION PLAN NOTES:**
- A. PROTECT ALL EXISTING UTILITIES.
 - B. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AT THE PROJECT SITE.
 - C. PATCH REMAINING EXISTING CONSTRUCTION, AFFECTED BY DEMOLITION, TO MATCH EXISTING U.O.N.
 - D. EXISTING ITEMS TO REMAIN ARE SHOWN AS HALFTONE.
 - E. DEMO ITEMS ARE SHOWN AS DASHED.
 - F. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION RELEVANT TO DEMOLITION & PATCHING.

- GENERAL ROOF NOTES:**
- A. PROVIDE SEALANT AT ALL INTERIOR AND EXTERIOR JOINTS BETWEEN DIFFERENT MATERIALS, TRANSITIONS, AND ACCORDING TO INDUSTRY STANDARDS AND MANUFACTURER'S SPECIFICATIONS.
 - B. ROOF VENTING @ 1:300 FOR RIDGE & SOFFIT VENTS. SEE MANUFACTURER.
 - C. VENT STACKS AS REQUIRED. SEE MANUFACTURER.
 - D. ROOF SHALL MATCH EXISTING SLOPE U.O.N.

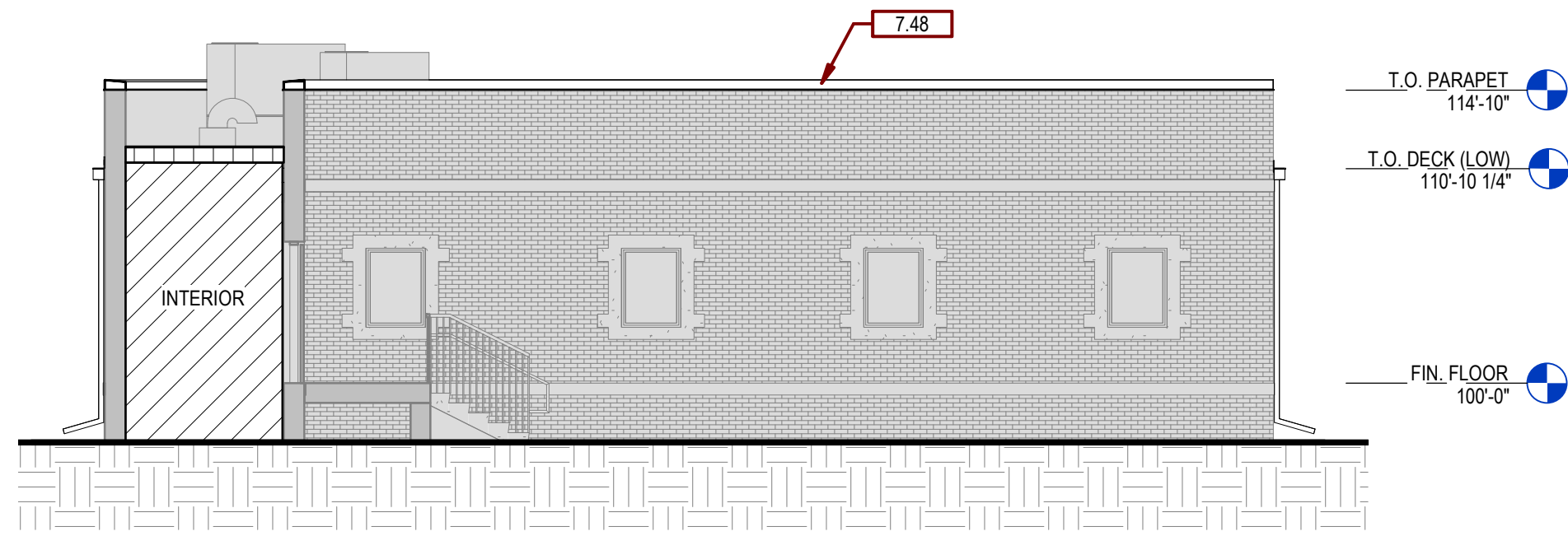
KEYNOTES_SGA	
Key Value	Keynote Text
6.23	EXISTING MODULAR BRIDGING STRIP TO REMAIN IN PLACE.
7.13A	REMOVE EXISTING MTL SIDING FROM INSIDE F.O. PARAPET.
7.40D	REMOVE EXISTING MTL COPING AND KEEPER STRIP.
7.47	EXISTING VTR TO REMAIN.
7.47A	EXISTING VTR. PROVIDE PRE-FAB ROOFING MEMBRANE BOOT FLASHING.
7.47F	EXISTING CONDUIT - PROVIDE PRE-FAB ROOFING MEMBRANE BOOT FLASHING.
7.47K	INSTALL MEMB FLASHING 8" MIN UP DUCT.
7.47L	EXISTING DUCT TO REMAIN. REMOVE EXISTING MEMB FLASHING.
7.48	PREFINISHED MTL COPING AND KEEPER STRIP.
7.50K	REMOVE EXISTING ADHERED ROOFING MEMB FROM WOOD DECK.
7.50M	EXISTING CURB TO REMAIN - REMOVE ROOFING MEMB FLASHING FROM CURB
7.50P	EXTEND ROOFING MEMB UP AND OVER CURB.
7.50R	EXTEND ROOFING MEMB UP CURB AND UNDER COUNTERFLASHING.
7.51A	ADHERED MEMB WALKWAY PROTECTION PADS.
7.53K	PLYWD CRICKETS TO REMAIN (TYP).
7.53L	ADHERED ROOFING MEMB ON EXISTING PLYWD CRICKETS (TYP)
7.54	EXISTING ROOF ACCESS HATCH AND CURB TO REMAIN.
7.58F	REMOVE EXISTING PREFINISHED MTL SCUPPER, CONDUCTOR HEAD AND DS.
7.58G	PREFINISHED MTL THRU WALL SCUPPER, CONDUCTOR AND OPEN FACE DS
7.58H	REMOVE EXISTING OVERFLOW SCUPPER. PATCH OPENING W/ 5/8" O.S.B. AND BRK TO MATCH EXISTING - TOOTH-IN NEW BRK.
23.02K	EXISTING CONDENSING UNIT TO BE REMOVED AND REINSTALLED AS REQUIRED FOR ROOFING - REF MEP.
23.02R	EXISTING MECH UNIT AND CURB TO REMAIN.
26.02A	EXISTING CONDUIT THRU ROOF TO REMAIN.
26.03	NEW CONDUIT FOR ELEC HEAT CABLE - REF ELEC. PROVIDE PRE-FAB ROOFING MEMBRANE BOOT FLASHING.



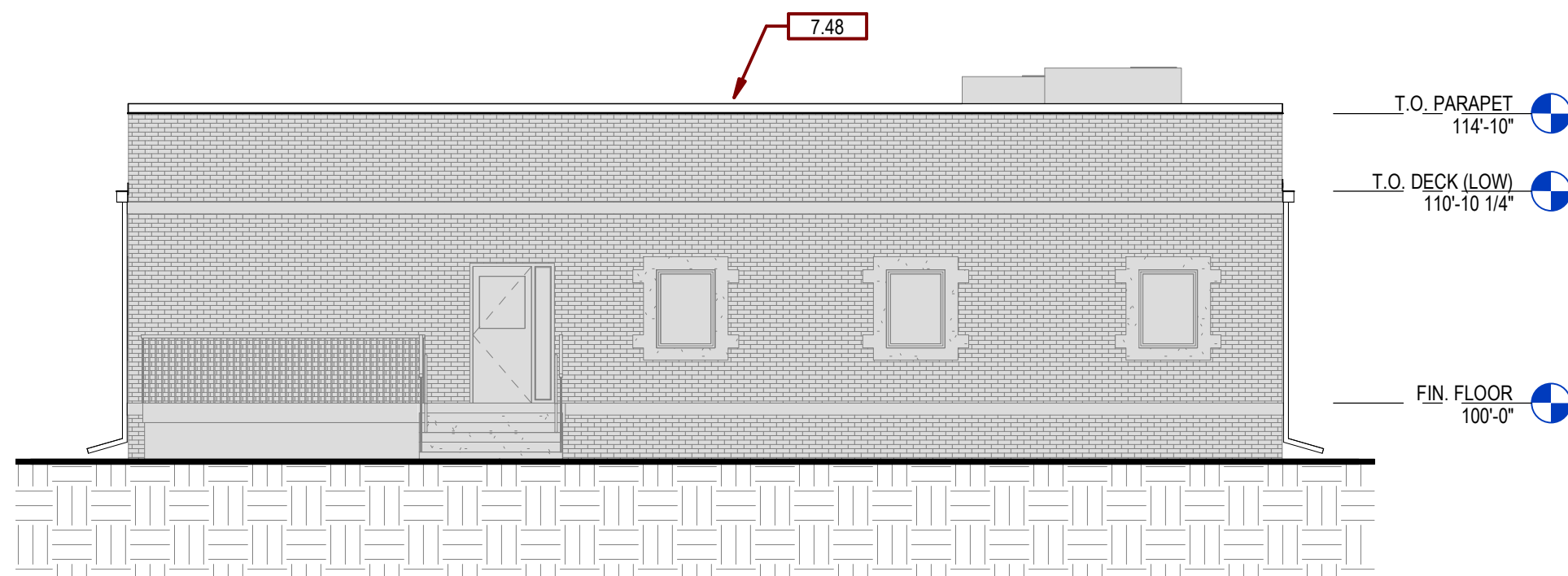
CAMPUS BUILDING KEY PLAN
NORTH

<table><tr><td>Revision#</td><td>Description</td><td>Date:</td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>			Revision#	Description	Date:																												CONSULTANTS CIVIL: EHRHART GRIFFIN & ASSOCIATES Ehrhart Griffin & Associates 601 N Minnesota Ave Sioux Falls, SD 57104 Phone: 605-339-7215 STRUCTURAL: ERA ERICKSEN ROED & ASSOCIATES Ericksen Roed Associates 2550 University Ave W Suite 423-S St. Paul, MN 55402 Phone: 651-251-7570 MEP: DUNHAM Dunham Associates, Inc. 50 South Sixth St Suite 1100 Minneapolis, MN 55402 Phone: 612-465-7550			ARCHITECT OF RECORD STONE GROUP ARCHITECTS Stone Group Architects, Inc. 600 East 7th Street Sioux Falls, SD 57103 Phone: 605-271-1144	Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs	Drawing Title ARCHITECTURAL - ROOF PLAN Approved:		Phase CONSTRUCTION DOCUMENTS		Project Title SIoux FALLS VA HEALTH CARE SYSTEM CAMPUS IMPROVE CAMPUS BUILDING EXTERIORS Location SIoux FALLS, SOUTH DAKOTA Issue Date 09-15-2023 Checked BH Drawn MA		Project Number VA #438-22-600 SGA #221926 Building Number 52 Drawing Number 52. AE121	
Revision#	Description	Date:																																											

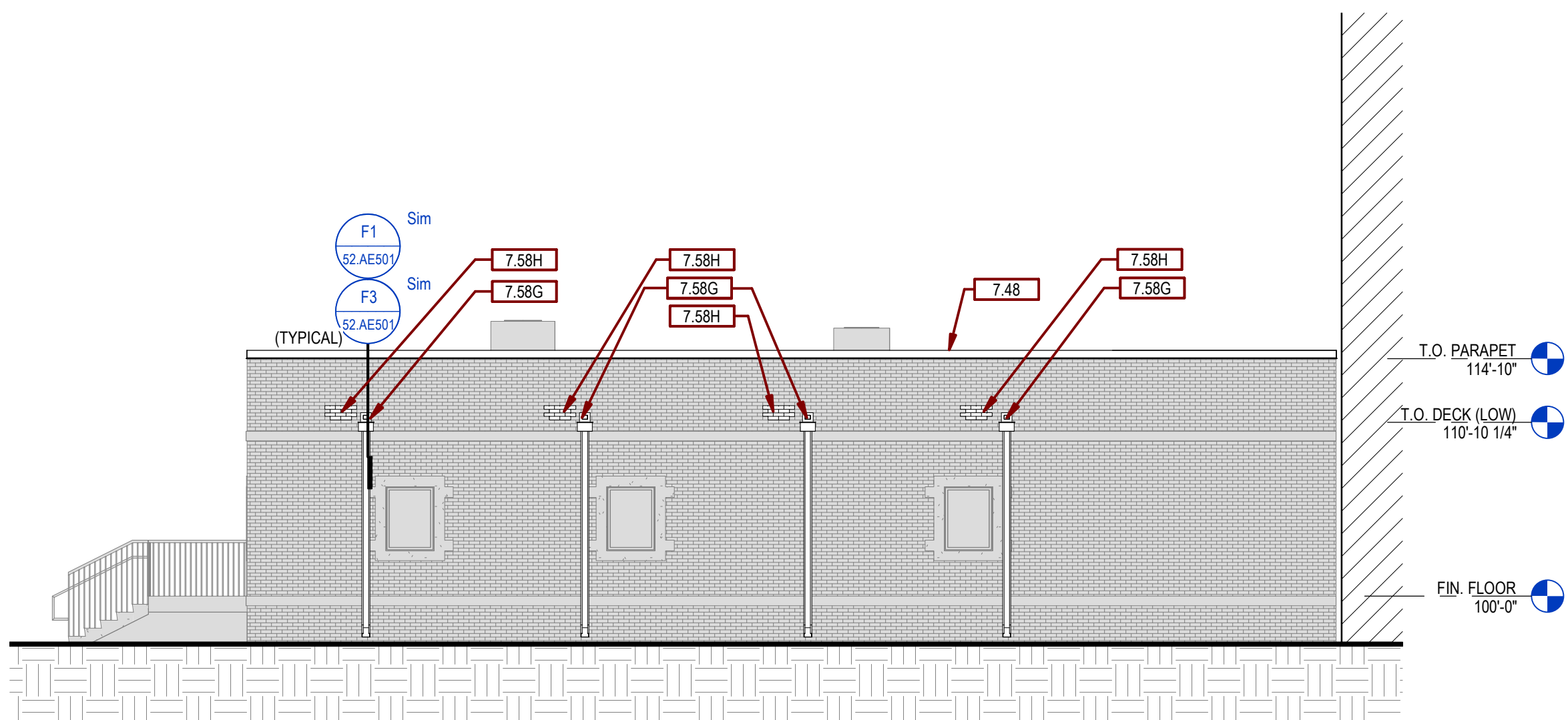
Scale bars and grid lines (1-10, A-F) are located along the left and right margins of the drawing.



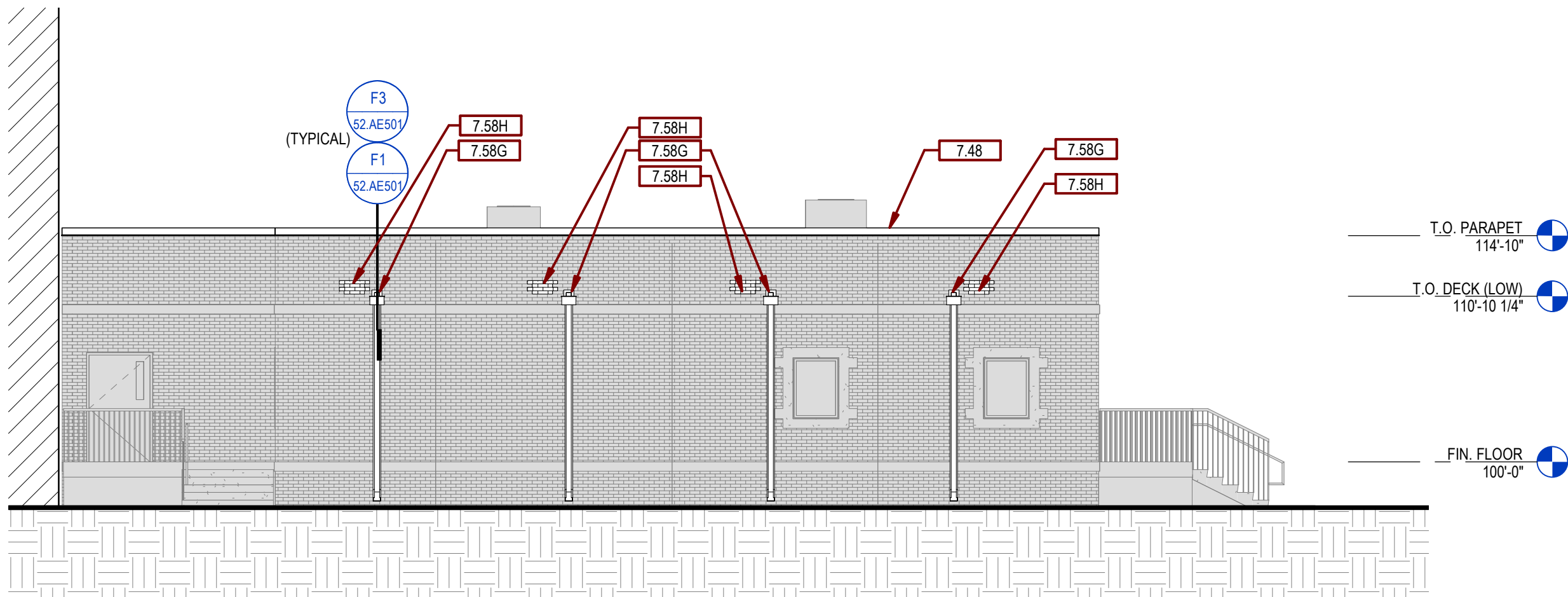
B2 NORTH ELEVATION
1/8" = 1'-0" D6 / 52.AE121



D2 SOUTH ELEVATION
1/8" = 1'-0" D6 / 52.AE121



B5 EAST ELEVATION
1/8" = 1'-0" D6 / 52.AE121



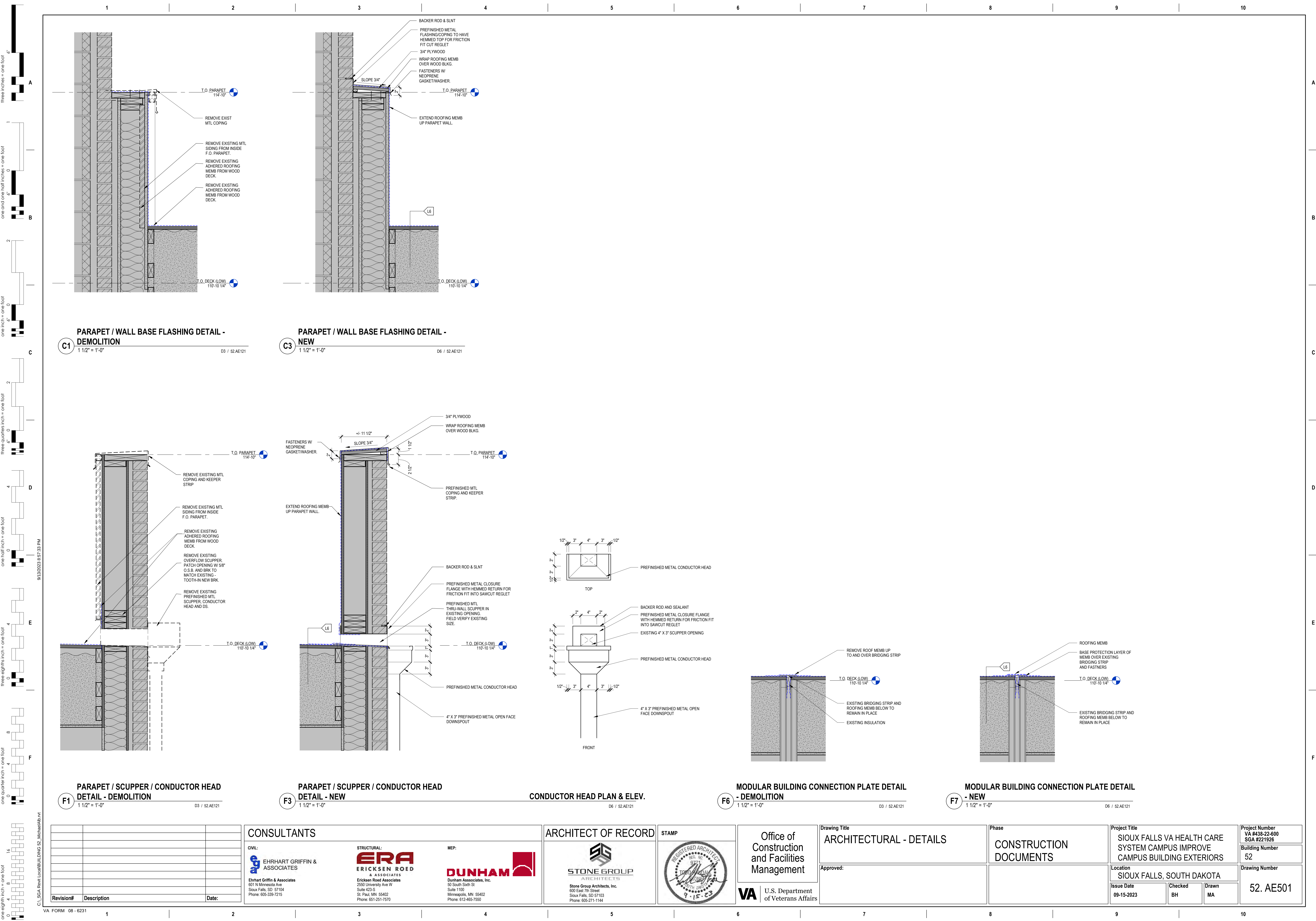
D5 WEST ELEVATION
1/8" = 1'-0" D6 / 52.AE121

GENERAL ELEVATION NOTES:

- A. ANY DISCREPANCIES OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE OWNER BEFORE PROCEEDING WITH THE WORK.
- B. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS.
- C. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AT THE PROJECT SITE.
- D. ALL MATERIALS & EQUIPMENT SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.

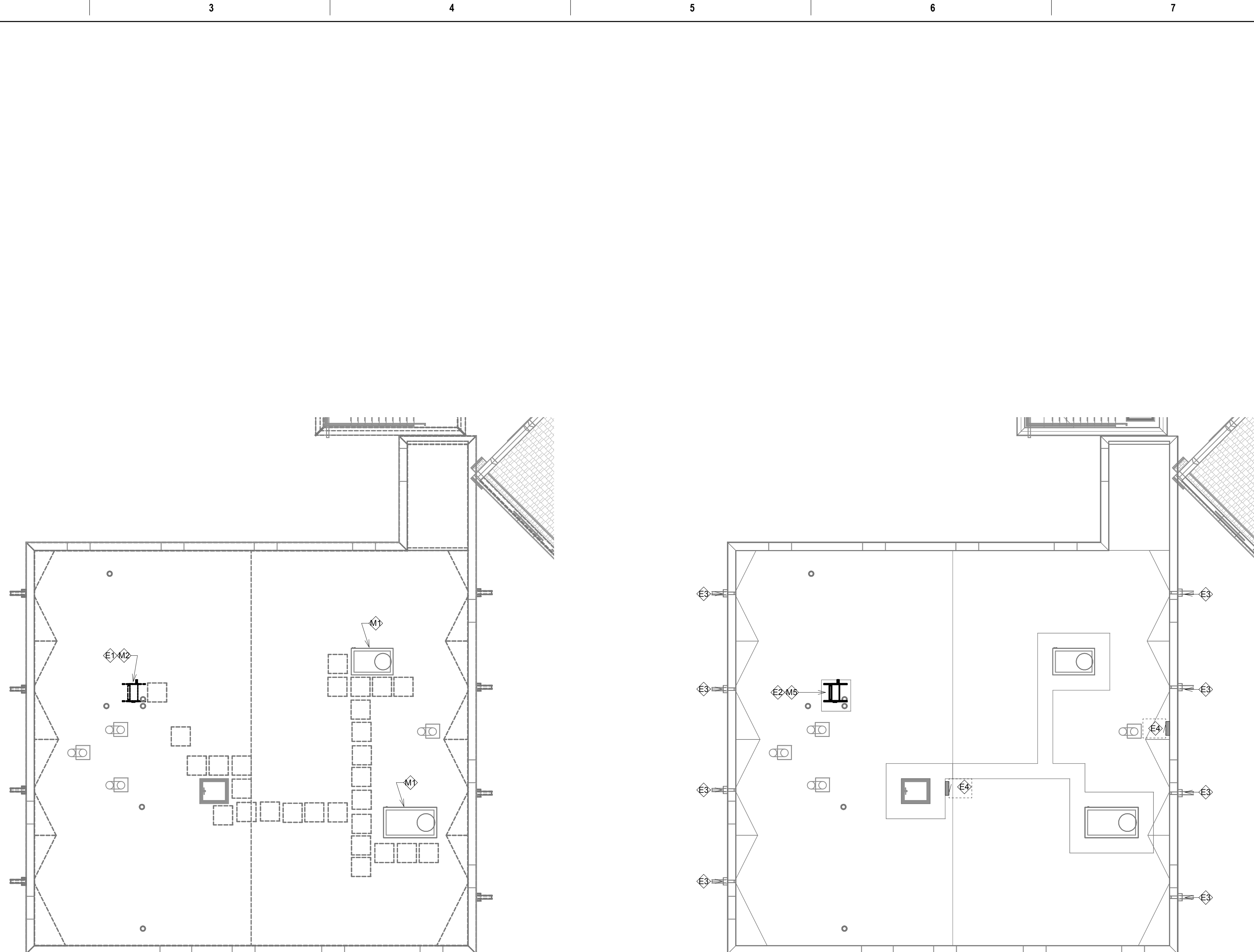
KEYNOTES_SGA	
Key Value	Keynote Text
7.48	PREFINISHED MTL COPING AND KEEPER STRIP.
7.58G	PREFINISHED MTL THRU WALL SCUPPER, CONDUCTOR AND OPEN FACE DS
7.58H	REMOVE EXISTING OVERFLOW SCUPPER. PATCH OPENING W/ 5/8" O.S.B. AND BRK TO MATCH EXISTING - TOOTH-IN NEW BRK.

CONSULTANTS			ARCHITECT OF RECORD		Office of Construction and Facilities Management		ARCHITECTURAL - ELEVATIONS		CONSTRUCTION DOCUMENTS		Project Title SIOUX FALLS VA HEALTH CARE SYSTEM CAMPUS IMPROVE CAMPUS BUILDING EXTERIORS		Project Number VA #438-22-600 SGA #221926	
CIVIL: EHRHART GRIFFIN & ASSOCIATES 601 N Minnesota Ave Sioux Falls, SD 57104 Phone: 605-339-7215			STRUCTURAL: ERA ERICKSEN ROED & ASSOCIATES Ericksen Roed Associates 2550 University Ave W Suite 423-S St. Paul, MN 55402 Phone: 651-251-7570		MEP: DUNHAM Dunham Associates, Inc. 50 South Sixth St Suite 1100 Minneapolis, MN 55402 Phone: 612-465-7550		STONE GROUP ARCHITECTS Stone Group Architects, Inc. 600 East 7th Street Sioux Falls, SD 57103 Phone: 605-271-1144		U.S. Department of Veterans Affairs		Approved:		Issue Date 09-15-2023	
Revision#			Description		Date:		Location SIOUX FALLS, SOUTH DAKOTA		Checked BH		Drawn MA		Drawing Number 52. AE201	



Three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

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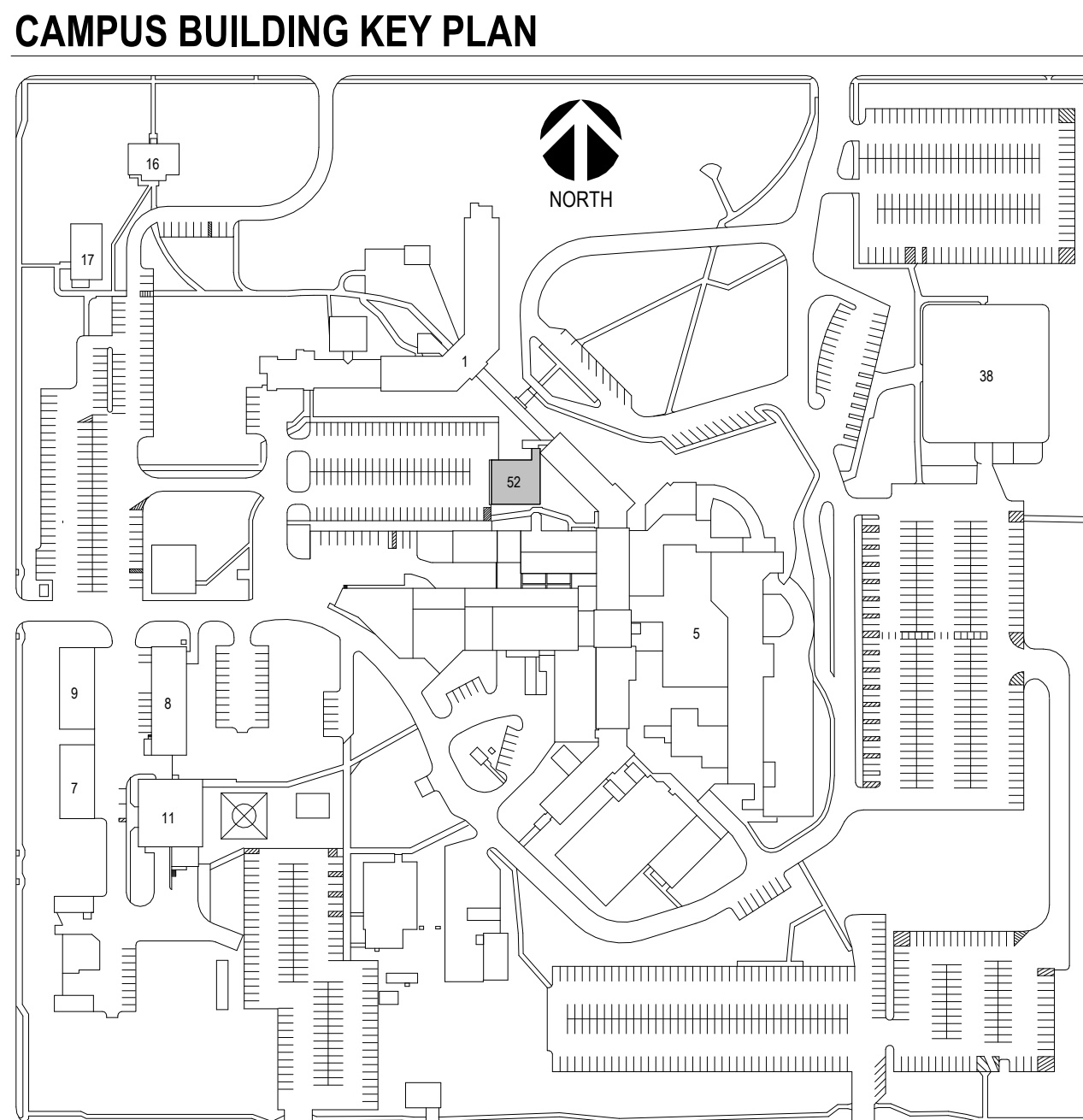
1 DEMOLITION MECHANICAL, ELECTRICAL, PLUMBING ROOF PLAN
1/8" = 1'-0"

2 MECHANICAL, ELECTRICAL, PLUMBING ROOF PLAN
1/8" = 1'-0"

- GENERAL NOTES:**
- A. MECHANICAL CONTRACTOR SHALL REFER TO SPECIFICATION MANUAL EDITED FOR THIS PROJECT ALONG WITH ANY APPLICABLE STANDARDS. ALL REQUIREMENTS OF THOSE MANUALS SHALL BE MAINTAINED IN ADDITION TO ALL NOTES AND DESCRIPTIONS INDICATED WITHIN THESE DRAWINGS. ANY CONFLICTS BETWEEN THOSE DOCUMENTS SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INTERPRETATION.
 - B. WHERE APPLICABLE (FOR ANY INTERIOR STORM DRAIN PIPING SHOWN INSTALLED WITHIN BUILDINGS 5 AND 38). COORDINATE ALL NEW PIPE ROUTING WITH ALL OTHER EXISTING UTILITIES TO ENSURE ADEQUATE CLEARANCES FOR ELECTRICAL CONDUIT, HVAC DUCTWORK & PIPING, STRUCTURAL SUPPORTS, ETC. PROVIDE ALL OFFSETS & TRANSITIONS AS REQUIRED FOR A CLEAN INSTALLATION.
 - C. NOTE THAT ALL INTERIOR STORM DRAIN, AND OVERFLOW STORM DRAIN, PIPING MUST BE FULLY INSULATED ON BOTH HORIZONTAL AND VERTICAL PIPE SECTIONS. REFER TO SPECIFICATION FOR LABELING OF PIPING AND IDENTIFICATION OF CLEANOUT ACCESS POINTS.
 - D. THE EXACT LOCATION OF EXISTING ROOFTOP EQUIPMENT ROUGH-INS SHALL BE VERIFIED PRIOR TO REMOVAL AND REPLACEMENT. CONTRACTOR TO VERIFY SOURCE OF ALL SERVICES FOR ISOLATION.
 - E. SUPPORT ALL PIPING DIRECTLY TO STRUCTURE. DO NOT SUPPORT ANY PIPING FROM DUCTWORK, CONDUIT OR OTHER PIPING ENCOUNTERED.
 - F. WHERE MECHANICAL SYSTEMS TO REMAIN ARE DAMAGED OR DISTURBED DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR WILL BE RESPONSIBLE TO REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL QUALITY AND FUNCTIONALITY.
 - G. COORDINATE ALL NEW ROOF DRAIN INSTALLATIONS. CONFIRM REQUIRED SIZE OF PENETRATION THROUGH STRUCTURAL ROOF TO BE DRILLED OR CUT BY THE CONTRACTOR. INFILL AROUND DRAIN BODY AND INCORPORATE INTO ROOFING MEMBRANE OR SYSTEM AS REQUIRED FOR WATER TIGHT SEAL.
 - H. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL PIPING, FITTINGS, VALVES & ACCESSORIES AS REQUIRED FOR INSTALLATION OF OWNER PROVIDED EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS.
 - I. CONTRACTOR TO PROVIDE CRANE RIGGING/PICK PLANS AT LEAST FOUR(4) WEEKS PRIOR TO SCHEDULED DATE. SUBMIT PLANS TO VA COR TO DISTRIBUTE TO APPROPRIATE SAFETY OFFICERS FOR DISRUPTION PLANNING. ALL DATES ARE TENTATIVE UNTIL APPROVED.
 - J. WHERE APPLICABLE ON INTERIOR WORK. PROVIDE CLEANOUTS AT BASE OF EVERY STORM DRAIN LEADER PRIOR TO PENETRATING SLAB ON GRADE. REFER TO SPECIFICATIONS THAT ALL PIPING, ABOVE AND BELOW GRADE, MUST BE FABRICATED OF CAST IRON.
 - K. CONTRACTOR SHALL MAINTAIN ACCURATE RECORD DRAWINGS SHOWING ALL DISCREPANCIES WITH ANY EXISTING PIPING INDICATED OR REVISIONS TO THE NEW PLUMBING OR FIRE PROTECTION LAYOUTS. ALL CHANGES WILL BE UPDATED WITHIN FINAL RECORD DRAWINGS.

- KEY NOTES: PLUMBING NEW WORK**
- M1 EXISTING ROOFTOP UNIT WILL BE ALLOWED TO REMAIN WHILE RE-ROOFING AROUND EXISTING CURB.
 - M2 TEMPORARILY REMOVE EXISTING CONDENSING UNIT, RECLAIMING REFRIGERANT FROM PIPING TO ALLOW DISCONNECTION. COORDINATE OUTAGE WITH VA COR TO DETERMINE IMPACT AND BEST TIMING TO SCHEDULE REMOVAL/REPLACEMENT.
 - M3 NOT USED.
 - M4 NOT USED.
 - M5 REINSTALL REMOVED CONDENSING UNIT AND REFILL WITH PREVIOUSLY RECLAIMED REFRIGERANT (PLUS ADDITIONAL AS REQUIRED TO ACHIEVE MANUFACTURER FILL PRESSURE). RECONNECT CONTROL WIRING AND PROVIDE BASIC PERFORMANCE TESTING ON START-UP.

- KEY NOTES: ELECTRICAL NEW WORK**
- E1 DISCONNECT ELECTRICAL CONNECTION TO MECHANICAL EQUIPMENT. COORDINATE WITH VA COR AND MECHANICAL CONTRACTOR IF TEMPORARY POWER IS REQUIRED.
 - E2 RECONNECT ELECTRICAL CONNECTION TO MECHANICAL EQUIPMENT. MODIFY EXISTING FEEDER AS REQUIRED.
 - E3 PROVIDE SELF-REGULATING HEATING CABLE WITH BRAID AND TEFLON STABILIZED POLYOLEFIN JACKET, CHROMALOX MODEL SRP-1RST OR EQUAL, WITH VERTICAL DOWNSPOUTS. START CABLING FROM POINT INDICATED AND INCLUDE DOWNSPOUT HANGERS TO SUPPORT CABLE DROPS TO TERMINATE JUST ABOVE GRADE. CONTRACTOR TO VERIFY LENGTHS OF CABLE REQUIRED AND PROVIDE ALL POWER CONNECTION KITS FOR FINAL CONNECTION BY ELECTRICAL CONTRACTOR. PROVIDE GFCI BREAKER AS REQUIRED BY NEC AND SIZED PER MANUFACTURER MAXIMUM CIRCUIT LENGTHS REQUIREMENTS. PROVIDE DEDICATED CIRCUIT FROM NEAREST SOURCE. PENETRATE / SEAL CONDUIT THROUGH ROOF, AND SECURE JUNCTION BOX TO BACKSIDE OF PARAPET WALL FOR FINAL CONNECTION TO HEATING CABLE.
 - E4 APPROXIMATE LOCATION OF EXISTING ELECTRICAL PANEL LOCATED ON FLOOR BELOW ROOF. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR ALL CEILING REMOVAL AND REPLACEMENT TO ROUTE CONDUIT WITHIN BUILDING TO EACH LOCATION INDICATED BY KEY NOTE #E1 ABOVE AND SEAL ROOF OR WALL PENETRATION AS REQUIRED. COORDINATE ACCESS TO BUILDING AREAS REQUIRED TO PERFORM WORK A MINIMUM OF 2 WEEKS IN ADVANCE AND COMPLY WITH ALL VA INFECTION CONTROL REQUIREMENTS.



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		STONE GROUP ARCHITECTS Stone Group Architects, Inc. 600 East 7th Street Sioux Falls, SD 57103 Phone: 605-271-1144		STAMP REGISTERED PROFESSIONAL ENGINEER REG. NO. 14944 JASON R. GOTTWALT SOUTH DAKOTA		Office of Construction and Facilities Management VA U.S. Department of Veterans Affairs		FOR OFFICIAL USE ONLY		Issue Date 09-15-2023		Checked JRG	
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