A	AIR
AAV	AUTOMATIC AIR VENT
ABV	ABOVE
ADA	AMERICANS WITH DISABILITIES ACT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHAP	AS HIGH AS POSSIBLE
AL	ALUMINUM
AMPS	AMPERES
APD	AIR PRESSURE DROP
ARCH	ARCHITECTURAL
BDD	BACKDRAFT DAMPER
BLDG	BUILDING
BI	BACK IRON
BOD	BOTTOM OF DUCT
BTUH	BRITISH THERMAL UNIT/HOUR
CA	COMBUSTION AIR
CD	CONDENSATE
CAP	CAPACITY
CFM	CUBIC FEET PER MINUTE
CIRC	CIRCULATING
CLG	CEILING
CONT	CONTINUED
CO	CLEANOUT
CU	COPPER
CW	COLD WATER
CLW	CLEAN WATER(AFTER RO FILTER
DIA	DIAMETER
dB	DECIBELS
DEG	DEGREE
DIM	DIMENSION
DN	DOWN
DWG	DRAWING
E/A	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EFF	EFFICIENCY
EXH	EXHAUST
EWT	ENTERING WATER TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE
EGT	ENTERING GLYCOL TEMPERATURRE
ENT	ENTERING
FT	FEET
FPM	FEET PER MINUTE
FC	FORWARD CURVE
F	FARENHEIT
FCO	FLOOR CLEANOUT
FD	FIRE DAMPER
FDC	FIRE DEPARTMENT CONNECTION
FLR	FLOOR
GA	GAUGE
GPH	GALLONS PER HOUR
GAL	GALLONS
GPM	GALLONS PER MINUTE
HD	HEAD
HW	HOT WATER
HWC	HOT WATER CIRCULATION
HPS	HIGH PRESSURE STEAM
HP	HORSEPOWER
IN	INCHES

LAV	LAVATORY
LF	LINEAL FEET
MBH	THOUSAND BTUH
MU	BOILER MAKEUP WATER
MOD	MOTOR OPERATED DAMPER
MPG	MEDIUM PRESSURE GAS
MTD	MOUNTED
NC	NOISE CRITERIA
N. C.	NORMALLY CLOSED
NP	NON POTABLE
N. O.	NORMALLY OPEN
NTS	NOT TO SCALE
O/A	OUTSIDE AIR
OC	ON CENTER
OD	OVERFLOW DRAIN
ON	OVERFLOW NOZZLE
OW	OILY WASTE
PD	PRESSURE DROP
PE	POLYETHYLENE PIPE
PG	PROPYLENE GLYCOL
PH	PHASE
PSI	POUND PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
R/A	RETURN AIR
RPM	REVOLUTIONS PER MINUTE
RL	RAIN LEADER
S/A	SUPPLY AIR
SGS	SNOWMELT GLYCOL SUPPLY
SGR	SNOWMELT GLYCOL RETURN
SP	STATIC PRESSURE
SQ	SQUARE
SS	SANITARY SEWER
TEMP	TEMPERATURE
TOD	TOP OF DUCT
TOS	TOP OF SLAB
TP	TRAP PRIMER
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TW	TEMPERED WATER
TWC	TEMPERED WATER CIRCULATED
TYP.	TYPICAL
V	VENT
VEL	VELOCITY
V.T.R.	VENT THRU ROOF
W/	WITH
W/O	WITHOUT
W	WASTE (SANITARY SEWER)
WCO	WALL CLEAN OUT
WG	WATER GAUGE
WHA	WATER HAMMER ARRESTOR
WPD	WATER PRESSURE DROP
YCO	YARD CLEAN OUT

SANITARY SEWER

VENT PIPING

DOMESTIC COLD WATER

DOMESTIC HOT WATER

PIPE UP

PIPE DOWN

TEE UP

TEE DOWN

CAP

UNION

DIRECTION OF FLOW

BALL VALVE

2-WAY CONTROL VALVE

3-WAY CONTROL VALVE

THERMOSTATIC MIXING VALVE

SWING CHECK VALVE

SPRING CHECK VALVE

BALANCE/SHUT-OFF VALVE

PRESSURE REDUCING VALVE

PRESSURE/TEMP RELIEF VALVE

SPILL PROOF VACUUM BREAKER

HOSE BIB

WATER HAMMER ARRESTOR

PUMP

END-OF-LINE CLEANOUT

FILTER

METER

PIPE GUIDE

PIPE ANCHOR

THERMOMETER

PRESSURE GAUGE W/ ISO COCK

STRAINER WITH BLOWDOWN

FLOOR OR YARD CLEANOUT

FLOOR DRAIN

THERMOSTAT

DOC TEMPERATURE SENSOR

SENSOR

EMERGENCY SHUT-OFF SWITCH

SUPPLY/COMBUSTION AIR

EXHAUST AIR

ROUND DUCT

VOLUME DAMPER

MOTORIZED CONTROL DAMPER

ACOUSTIC LINED DUCTWORK

12/24

DUCT SIZE

EXTERNALLY INSULATED DUCT

TURNING VANES

FLEXIBLE DUCT CONNECTION

FLEXIBLE DUCT

ACCESS DOOR

POINT OF CONNECTION

PROJECT INFORMATION:

NEW 6 UNIT APARTMENT COMPLEX

SCOPE

7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER

LIC # 101702
3/23/25

CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR: 2025-15
DATE: 3/23/25
DRAWN BY: RJT
SCALE: AS NOTED
SHEET NUMBER:

M1.0

GENERAL NOTES

PROJECT SHALL BE CONSTRUCTED TO THE 2021 UNIFORM PLUMBING CODE (UPC), 2021 INTERNATIONAL FUEL GAS CODE (IFGC), INTERNATIONAL MECHANICAL CODE 2021 AS ADOPTED AND AMENDED BY THE STATE OF ALASKA, THE INTERNATIONAL MECHANICAL CODE 2021 CHAPTERS 1-15 AND APPENDIX A, ARE ADOPTED BY REFERENCE TO REGULATE ALL OCCUPANCIES AND BUILDINGS, EXCEPT THAT THE IMC IS REVISED BY DELETING ALL THE REFERENCES TO THE INTERNATIONAL PLUMBING CODE, AND REPLACING WITH PLUMBING CODE AS ADOPTED BY 8 AAC 63.010, AS AMENDED FROM TIME TO TIME (WHICH MAY BE FOUND AT HTTPS://WWW.AKLEG.GOV/BASIS/AAC.ASP#8.63.010).

SHEET METAL WORK SHALL BE DONE IN ACCORDANCE WITH SMACNA STANDARDS.

ALL PIPING, DUCTWORK AND EQUIPMENT SHALL BE INSTALLED FOR SEISMIC EVENT IN ACCORDANCE WITH THE 2021 EDITION OF THE INTERNATIONAL BUILDING CODE AND ASCE 7.

CONTRACTOR SHALL PROVIDE THE OWNER WITH OPERATING AND MAINTENANCE MANUALS, TO INCLUDE MANUFACTURER'S SPECIFICATIONS, OPERATING AND MAINTENANCE INSTRUCTIONS, WARRANTY INFORMATION ON EACH PIECE OF EQUIPMENT, AND SCHEMATIC DIAGRAMS OF CONTROL SYSTEMS AS-BUILT, AS WELL AS A SOURCE OF SUPPLY FOR SPARE PARTS AND SERVICE.

PROVIDE ACCURATE PROJECT RECORD AS-BUILT DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.

PROVIDE CONTROL SYSTEM TO ACCOMPLISH THE SEQUENCE OF OPERATIONS. PROVIDE ALL CONTROLLERS, TEMPERATURE SENSORS, THERMOSTATS, CONTROL VALVES, CONTROL DAMPERS, ELECTRIC ACTUATORS, TRANSFORMERS, WIRING AND ASSOCIATED COMPONENTS. INSTALL ALL WIRING IN ACCORDANCE WITH THE NEC. TEST ALL SYSTEMS, VERIFY ALL SYSTEMS OPERATE AS SPECIFIED IN SEQUENCE OF OPERATIONS, AND RECORD INITIAL SETTING AND OPERATING SET-POINTS IN O&M MANUALS. PROVIDE OPERATOR INTERFACE TO ALLOW FOR LOCAL SCHEDULE ADJUSTMENT, SET-POINT ADJUSTMENT, AND HVAC MONITORING. PROVIDE TAMPERPROOF THERMOSTAT GUARDS IN ALL PUBLIC AREAS. PROVIDE CONTROL SYSTEM DEMONSTRATION TO OWNERS REPRESENTATIVE(S) PRIOR TO SUBSTANTIAL COMPLETION.

PROVIDE ACCESS TO ALL SERVICEABLE AND/OR OPERABLE EQUIPMENT. PROVIDE ACCESS DOORS FOR ALL EQUIPMENT INSTALLED IN CONCEALED LOCATIONS.

INSTALL ALL EQUIPMENT WHERE SHOWN IN PLANS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PROVIDE MISCELLANEOUS APPURTENANCES, ACCESSORIES, SUPPORTS AND CONTROL CONNECTIONS REQUIRED FOR COMPLETE AND OPERATING SYSTEMS. MAINTAIN MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES

PROVIDE ISOLATION VALVES AT EACH FIXTURE, AND GAS ISOLATION VALVE AT EACH GAS APPLIANCE. BRONZE TWO PIECE BODY, FULL PORT, FORGED BRASS, CHROME PLATED BALL, TEFLON SEATS AND STUFFING BOX RING, BLOW-OUT PROOF STEM, LEVER HANDLE,SOLDER OR THREADED ENDS.

ALL HANGERS AND SUPPORTS SHALL BE INSTALLED IN ACCORDANCE WITH 2021 UPC, INSTALLED AS PER THE MANUFACTURES INSTRUCTIONS. PROVIDE SEISMIC SUPPORT FOR ALL PIPING SYSTEMS IN ACCORDANCE WITH IBC 2021.

INSULATE ALL DOMESTIC HOT AND COLD WATER PIPING SIZE 1.5" AND LARGER, COMPLETE WITH VAPOR BARRIER JACKET AND PLASTIC COVER FOR FITTINGS. INSULATE PLUMBING VTR'S DOWN 3" FROM ROOF WITH 1" FIBERGLASS PIPE INSULATION. INSULATE RAINWATER ROOF DRAIN PIPING EXCEPT VERTICAL EXPOSED RAINWATER PIPING IN SERVICE AREAS. INSULATE RAINWATER ROOF DRAIN PIPING WITH 1" FIBERGLASS INSULATION, COMPLETE WITH VAPOR SEAL ON ALL PIPING ABOVE GRADE. INSULATE SUPPLY AND WASTE PIPING AT ADA ACCESSIBLE LAVATORIES WITH CELLULAR FOAM, PREFORMED FOR P-TRAP AND HOT WATER ANGLE STOP AND SUPPLY TUBE.

NATURAL GAS PIPING

STEEL PIPE: ASTM A53, SCHEDULE 40 BLACK

FITTINGS: ASME B16.3 MALLEABLE IRON OR ASTM A234/A234M FORGED STEEL WELDING TYPE.

JOINTS: NFPA 54 SCREWED FOR LOW PRESSURE PIPE TWO INCHES AND UNDER OR MEDIUM PRESSURE OUTSIDE OF BUILDINGS, ANSI B31.1 WELDED FOR PIPE OVER 2" OR FOR MEDIUM PRESSURE INSIDE OF BUILDINGS.

GENERAL NOTES

WASTE AND VENT PIPING -
ABS PIPE;ASTM D2751. FITTINGS: ABS, JOINTS:ASTM D2235, SOLVENT WELD.

DOMESTIC WATER PIPING (CW/HW)

COPPER TUBING, ASTM B88, TYPE L, HARD DRAWN.

FITTINGS: ASME B 16.18 CAST BRONZE OR ASME B16.22 WROUGHT COPPER,

JOINTS: ASTM B32, LEAD FREE SOLDER, WATER SOLUBLE FLUX OR PRO PRESS SYSTEM.

CPVC TUBING:

1/2" TO 2" FLOW GUARD GOLD CPVC: ASTM D2846, NSF LISTED, SDR 11,

FITTINGS: ASTM F 439 SOLVENT WELDED SOCKET TYPE 2" AND LARGER CORZAN CPVC: ASTM F441, NSF LISTED ,SCHEDULE 80

PEX TUBING:

CROSS-LINKED HIGH DENSITY POLYTHENE. TUBING SHALL BE PRODUCED BY USING THE SILANE METHOD OF CROSS-LINKING AND SHALL MEET THE DIMENSION AND PERFORMANCE SPECIFICATIONS OF ASTM F876/F877 AND CSA B137.5. TUBING SHALL ALSO COMPLY WITH ANSI/NSF 61 AS SUITABLE FOR USE WITH POTABLE WATER. PEX PIPING NOT TO BE INSTALLED WITHIN FIRST 18" WHERE PIPING CONNECTS TO A WATER HEATER. UPC 604.13

CLEANOUTS TO BE PROVIDED AS PER UPC 707. CLEANOUTS TO BE GAS AND LIQUID TIGHT. HORIZONTAL DRAINAGE PIPING TO BE PROVIDED WITH CLEANOUT AT ITS UPPER TERMINAL, AND EACH RUN OF PIPING THAT IS 100 FT IN TOTAL DEVELOPED LENGTH SHALL ALSO BE PROVIDED WITH A CLEANOUT AS WELL AS EVERY 100 FT OF PIPING OR PIPING THAT HAS AN AGGREGATE CHANGE OF DIRECTION EXCEEDING 135 DEG. EXCEPTIONS ARE ROVIDED IN UPC 707 AS WELL.

FLANGES UNIONS, AND COUPLINGS- 150 PSIG MALLEABLE IRON UNIONS FOR THREADED FERROUS PIPING; BRONZE UNIONS FOR COPPER PIPE, SOLDERED JOINTS.

WATER HAMMER ARRESTORS SHALL BE INSTALLED AS PER UPC SECTION 609.10 AND AS PER PDI WH-201-2006 IN ACCESSIBLE LOCATIONS OR PROVIDE ACCESS DOORS AS REQUIRED, MANUFACTURED BY J.R. SMITH OR APPROVED EQUAL.

CONTROL VALVES - BRONZE BODY AND SEAT WITH STAINLESSSTEEL STEM AND SCREWED ENDS. ANSI CLASS 250 BODY RATING. SUITABLE FOR FLUID TEMPERATURES OF UP TO 300 DEG. F CONTROL VALVES SHALL BE CORRECTLY SELECTED FOR SERVICE AND FLOW OF SYSTEM SERVED. A PRESSURE DROP OF 3 PSI SHALL BE USED TO AS A SIZING GUIDLINE FOR

MODULATING VALVES, TWO POSITION SHUT-OFF VALVES SHALL BE LINE SIZE. PROVIDE ELECTRONIC ACTUATORS WITH SUFFICIENT CLOSE-OFF PRESSURE TO CLOSE-OFF AGAINST SYSTEM PUMP HEAD.

HIGH EFFICIENCY BOILER B-1 REQUIRES THE CONDENSATE TO BE PROCESSED THROUGH A FACTORY BUILT CONDENSATE NEUTRALIZER AND PIPED TO AN APPROVED RECEPTICLE PER IFGC 307.2 PLUS LOCAL AMENDMENT.

GENERAL NOTES

THE CONTRACTOR SHALL BALANCE THE AIR DUCT SYSTEMS ACCORDING TO NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) RECOMMENDED PROCEDURES AND CONTRACT DOCUMENTS, AND TO THE SATISFACTION OF THE OWNER. AIR FLOW'S ARE TO BE BALANCED TO WITHIN 10% OF INDICATED FLOWS, PER AMERICAN AIR BALANCING COUNCIL(AABC) RECOMMENDED METHODS,

PROVIDE GALVANIZED SHEET METAL WHERE CALLED OUT ON THE PLANS. SEAL ALL DUCT SEAMS AND JOINTS AIR TIGHT. INSTALL VOLUME DAMPERS AT EACH DUCT BRANCH AS NEEDED TO ENSURE PROPER BALANCING. ALL SHEET METAL WORK TO BE CONSTRUCTED, INSTALLED, TESTED, SUPPORTED AND BALANCED IN ACCORDANCE WITH SMACNA STANDARDS. CONSTRUCT T'S, BENDS, AND ELBOWS WITH RADIUS OF NOT LESS THAN 1-1/2 TIMES WIDTH OF DUCT ON CENTERLINE. IF 1-1/2 TIMES WIDTH CANNOT BE ACHEIVED AND WHERE RECTANGULAR ELBOWS ARE USED, CONSTRACTOR SHALL INSTALL AIR FOIL TURNING VANES. WHERE ACOUSTICAL LINING IS REQUIRED , PROVIDE TURNING VANES OF PERFORATED METAL WITH GLASS FIBER INSULATION. WELD IN PLACE. TRANSFORM DUCT SIZE GRADUALLY , NOT EXCEEDINGLY 15" DIVERGENCE AND 30" CONVERGENCE. PROVIDE STANDARD 45 DEGREE LATERAL WYE TAKEOFFS, UNLESS OTHERWISE INDICATED WHERE 90 DEGREE CONICAL TEE CONNECTIONS MAY BE USED. ALL ROUND DUCTWORK SHALL BE SPIRAL, NO EXCEPTIONS.

INSULATED FLEXIBLE DUCTS: FABRIC SUPPORTED BY HELICALLY WOUND SPRING STEEL WIRE OR FLAT STEEL BANDS; RATED TO 2 INCHES WG POSITIVE AND 1.5 INCHES WG NEGATIVE FOR LOW PRESSURE DUCTS AND 15 INCH WG POSITIVE OR NEGATIVE FOR MEDIUM HIGH PRESSURE DUCTS WRAPPED WITH FLEXIBLE GLASS FIBER INSULATION, ENCLOSED BY SEAMLESS ALUMINUM PIGMENTED PLASTIC VAPOR BARRIER JACKET; MAXIMUM 0.23 K VALUE AT 75 DEG F.

CONTROL DAMPERS - MULTI-BLADE, OPPOSED BLADE ACTION, CONTROL DAMPERS OF EXTRUDED ALUMINUM, WITH AIR FOIL TYPE BLADES OF MAXIMUM SIX INCH WIDTH, BLADES POSITIONED ACROSS SHORT AIR OPENING DIMENSION ACROSS SHORT AIR OPENING DIMENSIONS, FIELD REPLACEABLE EXTRUDED VINYL SEALED EDGES, LINKED TOGETHER IN RATTLE FREE MANNER, NON-CORROSIVE MOLDED SYNTHETIC BEARINGS, SQUARE OR HEXAGONAL AXLES FOR POSITIVE LOCKING CONNECTION TO BLADES AND LINKAGE, DOCUMENTED LEAKAGE RATE NOT TO EXCEED 6 CFM/SQ. FT. AT 4 INCH W.G.

DUCT SOUND LINING - FLEXIBLE GLASS FIBER; ANSI/ASTM C1071; K' VALUE OR 0.24 AT 75 DEG F; COATED AIR SIDE FOR MAXIMUM 5,00 FT./MIN AIR VELOCITY, UL LISTED ADHESIVE GALVANIZED STEEL PINS.

ALL DUCTWORK MUST BE INSULATED TO A MINIMUM OF 10' INSIDE OF EXTERIOR WALL IF DUCT IS CONNECTED WITH OUTSIDE AIR OPENING.

DUCTWORK - 1" THICK FLEXIBLE INSULATION; AVERAGE THERMAL CONDUCTIVITY K EQUALS 0.24 AT 75 DEGREES F MEAN TEMPERATURE AT 1.5 PCF DENSITY. ATSM. FACTORY APPLIED APOR BARRIER FLAME RETARDENT FOIL-SCRIM-KRAFT (FSK) OR ALL SERVICE JACKET AND TAPE WITH PERMEABILITY RATING EQUALS 0.02 PERMS. ASTM 96. PROVIDE 1" FIBERGLASS INSULATION WITH A COMPLETE FACTORY APPLIED VAPOR BARRIER JACKET ON ALL EXHAUST DUCTWORK WITHIN 10' OF EXTERIOR OPENINGS AND MEDIUM PRESSURE SUPPLY DUCTWORK. INSULATE OUTSIDE AIR DUCTWORK WITH 2" RIGID EXTERIOR FSK DUCT WRAP AND CANVAS FINISH.

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER

LIC # 101702
3/23/25

CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED

SHEET NUMBER:

M2.0

PLUMBING FIXTURE SCHEDULE

SYMBOL	MANUFACTURER	MODEL	DESCRIPTION	MOUNTING	CW	HW	WASTE	VENT	TRAP	COLOR	SPECIFICATIONS
WC-1	PROFLO	PF1403T	WATER CLOSET	FLOOR	1/2"	---	3"	2"	---	WHITE	TWO PIECE TOILET, ELONGATED BOWL, 17" RIM HEIGHT, ICC/ANSI A117.1 ADA REQUIREMENTS OR APPROVED EQUAL.
LAV-1	KOHLER	K-2196	LAVATORY	COUNTER	1/2"	1/2"	1-1/2"	1-1/4"	1-1/2"	WHITE	PENNINGTON DELTA 501-HDF FAUCET, GRID STRAINER , VANDAL RESTRAINT 1.5 GPM AERORATOR, MUST MEET ADA IF ADA UNIT OR APPROVED EQUAL.
LAV-2	AMERICAN STANDARD	DECLYN	LAVATORY	COUNTER	1/2"	1/2"	1-1/2"	1-1/4"	1-1/2"	WHITE	AMERICAN STANDARD 0321026.020 DECLYN 18 1/2" X 17" WHITE VITREOUS CHINA WALL-MOUNT LAVATORY WITH 4" CENTERSET AND WALL HANGER OR APPROVED EQUAL.
FD-1	J.R. SMITH	2005	FLOOR DRAIN	FLOOR	---	---	3"	2"	3"	---	FLOOR DRAIN, ROUND TOP TRAP PRIMER CONNECTION, OR APPROVED EQUAL
HB-1	WOODFORD	B65-CH	KITCHEN SINK	DROP IN	3/4"	---	---	---	---	CHROME	WOODFORD MODEL B65-CH FOR HOSE BI-EXTERIOR CHROME, FREEZE-LESS, ANTI-SIPHON VACUUM BREAKER, METAL HANDLE, LOCKING WALL BOX, OR APPROVED EQUAL.
TUB-1	STERLING	ENSEMBLE	TUB KIT	FLOOR	1/2"	1/2"	2"	1-1/2"	2"	WHITE	ENSEMBLE MEDLEY 60 IN. X 31.125 IN. X 74.25 IN. 4-PIECE TONGUE AND GROOVE TUB WALL IN WHITE OR APPROVED EQUAL
DW-1	FRIGIDAIRE	FFCD2413US	DISHWASHER	FLOOR	---	1/2"	---	---	---	SS	FRIGIDAIRE 60-DECIBEL FILTRATION BUILT-IN DISHWASHER (STAINLESS STEEL) (COMMON: 24-IN; ACTUAL: 24-IN) ENERGY STAR, OR APPROVED EQUAL
WB-1	IPS CORP	GUY GREY	WASHER BOX	WALL	1/2"	1/2"	2"	1-1/2"	2"	WHITE	IPS CORP GUY GRAY WASHER BOX, OR APPROVED EQUAL
KS-1	ELKAY	DAYTON	KITCHEN SINK	DROP IN	1/2"	1/2"	2"	1-1/2"	2"	SS	DAYTON DROP-IN STAINLESS STEEL 33 IN 3 HOLE DOUBLE BOWL SINK, OR APPROVED EQUAL
BRS-1	ELKAY	DAYTON	KITCHEN SINK	DROP IN	1/2"	1/2"	2"	1-1/2"	2"	SS	DAYTON STAINLESS STEEL 25" X 22" X 6-9/16" 1-HOLE SINGLE BOWL DROP-IN SINK, OR APPROVED EQUAL

BOILER SCHEDULE

SYMBOL	MANUFACTURER	MODEL	BTU INPUT (MBH)	BTU OUTPUT (MBH)	AFUE %	SPECIFICATIONS
B-1	LOCHINVAR	WHB285	285	264	95	LOCHINVAR KNIGHT FIRE TUBE BOILER, 27.0 GPM FLOW RATE, 2.4 FT HD., 1-1/4" CONNECTIONS, 3" VENT, OR APPROVED EQUAL.

PUMP SCHEDULE

SYMBOL	MANUFACTURER	MODEL	GPM	FT HD	VOLTS/HZ/PHASE	SPECIFICATIONS
BSP-1	GRUNDFOS	UPS26-99F	40	2.4	230V/60HZ/1Ø	BOILER CIRC PUMP, GRUNDFOS OR APPROVED EQUAL
WSP-1	GRUNDFOS	UPS15-58FC	14	6.5	230V/60HZ/1Ø	HOT WATER HEATER CIRCULATION LOOP PUMP, GRUNDFOS OR APPROVED EQUAL
BPP-1	GRUNDFOS	MAGNA1 40-80 GF	44	14	120V/60HZ/1Ø	PRIMARY HEATING LOOP PUMP, GRUNDFOS OR APPROVED EQUAL
HWCP-1	GRUNDFOS	UPS15-55 SFC	1	15	120V/60HZ/1Ø	HOT WATER RECIRC PUMP, GRUNDFOS OR APPROVED EQUAL

WATER HEATER SCHEDULE

SYMBOL	MANUFACTURER	MODEL	STORAGE (GAL)	BTU INPUT (MBH)	RECOVERY @ 100 DEG RISE	SPECIFICATIONS
WH-1	LOCHINVAR	SIT119	113	199	308 GPH	LOCHINVAR STAINLESS STEEL INDIRECT WATER HEATER, 14.0 GPM FLOW RATE, 6.5 FT HD. OR APPROVED EQUAL.

EXAUST FAN SCHEDULE

SYMBOL	MANUFACTURER	MODEL	WATTS	ESP (IN WC)	CFM	VOLTS/HZ/PHASE	SPECIFICATIONS
EF-1	PANASONIC	FV-0510VS1	4.4	0.1	50	120V/60HZ/1Ø	WHISPERFITEZ FAN 50/80/100 CFM, 0.09 A, OR APPROVED EQUAL

EXPANSION TANK SCHEDULE

SYMBOL	MANUFACTURER	MODEL	FUNCTION	TANK VOLUME	SPECIFICATIONS
ET-1	THERM-X-TROL	ST-5C	HOT WATER	2 GALLONS	MAX OPERATIING TEMPERATURE MAX WORKING PRESSURE 150 PSIG, PRECHARGE PRESSURE 55 PSIG. OR APPROVED EQUAL
BET-1	THERM-X-TROL	AX-15(V)	BOILER	8.6 GALLONS	MAX OPERATIING TEMPERATURE MAX WORKING PRESSURE 150 PSIG, PRECHARGE PRESSURE 55 PSIG. OR APPROVED EQUAL

FRESH AIR INLET SCHEDULE

SYMBOL	MANUFACTURER	MODEL	SIZE	USE	SPECIFICATIONS
FAI-1	THERMA-STOR	FRESH	70	OA	FRESH 80 AIR INLET OR APPROVED EQUAL

FANS SEQUENCE OF OPERATION

EF-1: BATHROOM ROOM EXHAUST. FAN IS EITHER ON OF OFF BASED UPON ROOM OCCUPANCY. IF LIGHT IS ON FAN IS ON IF LIGHT IS OFF FAN IS OFF.

WH-1: WATER HEATER TO HAVE INTEGRAL AQUASTAT AND SHALL OPERATE TO MAINTAIN 120 DEG F SETPOINT FOR FIXTURES.

B-1 AND WH-1 SYSTEM TO BE CONTROLLED WITH BOILER SYSTEM CONTROLS WITH HOT WATER PRIORITY PUMPS CONTORLED THROUGH BOILER SYSTEM AS PER MANUFACTURERS RECOMMENDATION. ROOMS TO HAVE THERMOSTATS TO CONTROL ROOM SET TEMPERATURE.

BASEBOARD SCHEDULE

SYMBOL	MANUFACTURER	MODEL	ELEMENT TYPE	FINS / FT	BTU/FT/HR	SPECIFICATIONS
BB-1	SLANT FIN	MULTI PAK 80	H3	55	730	83-A2 BASEBOARD (H-3 ELEMENT IN 80D ENCLOSURE), ENCLOSURE TO BE MINIMUM OF 12" LONGER THAN ELEMENT OR APPROVED EQUAL

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA 49TH Ron Thompson No. ME-9246 REGISTERED PROFESSIONAL ENGINEER

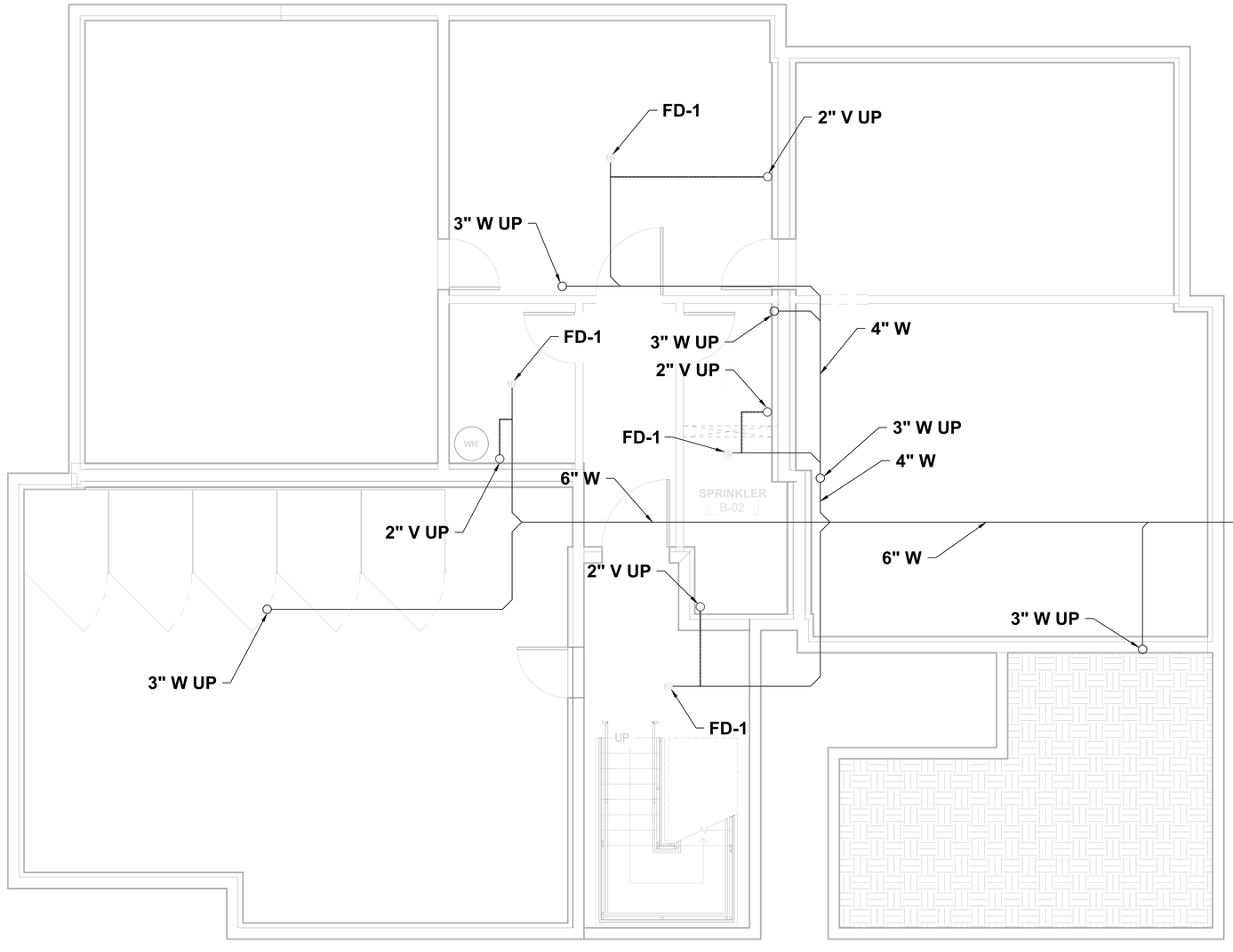
LIC # 101702
3/23/25

CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR: 2025-15
DATE: 3/23/25
DRAWN BY: RJT
SCALE: AS NOTED
SHEET NUMBER:

M3.0



1 WASTE/VENT BASEMENT PLAN
1/4" = 1' - 0"

N

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

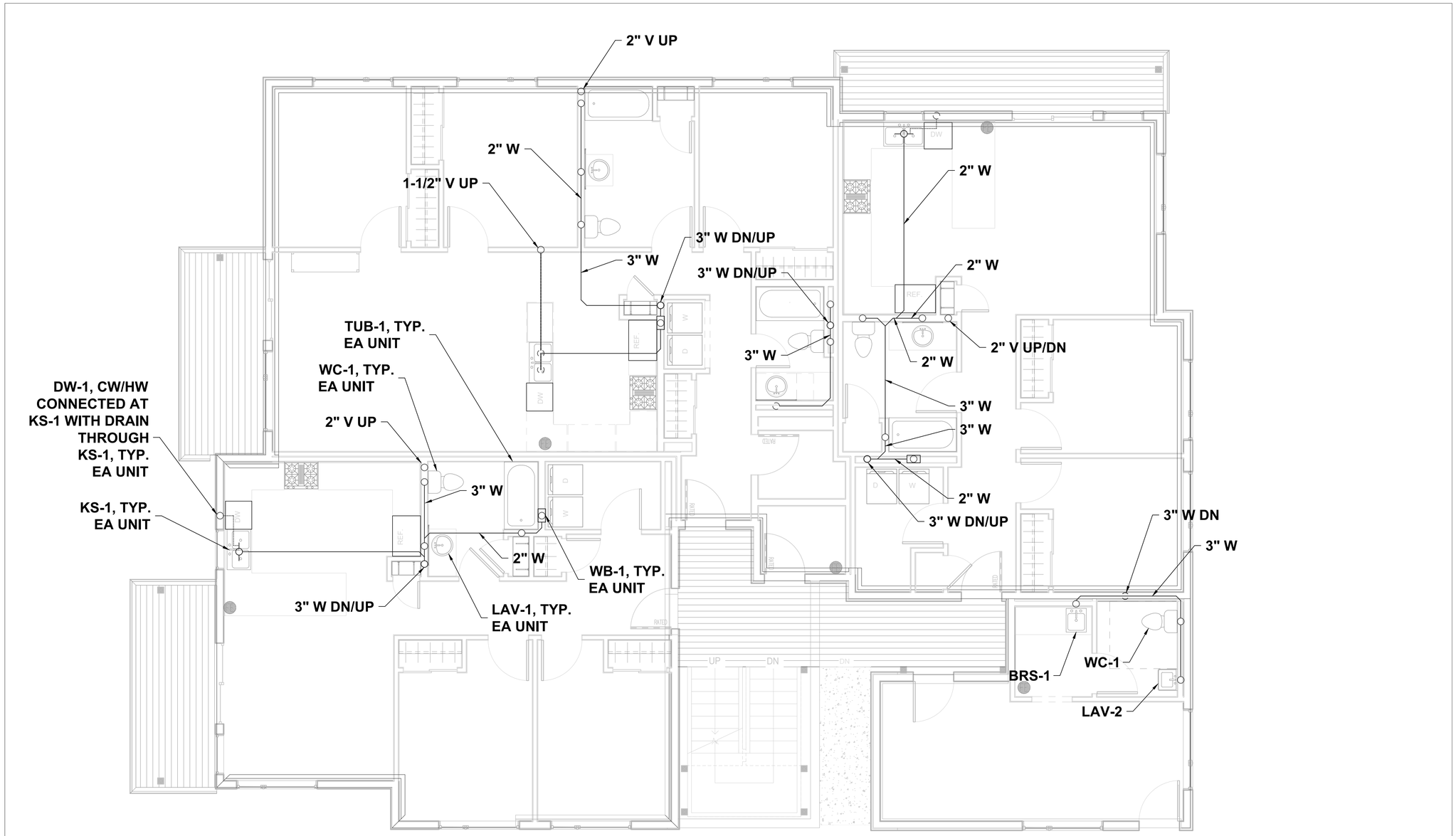
CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED

SHEET NUMBER:

M4.0



1 WASTE/VENT FIRST FLOOR PLAN
1/4" = 1' - 0"

N

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

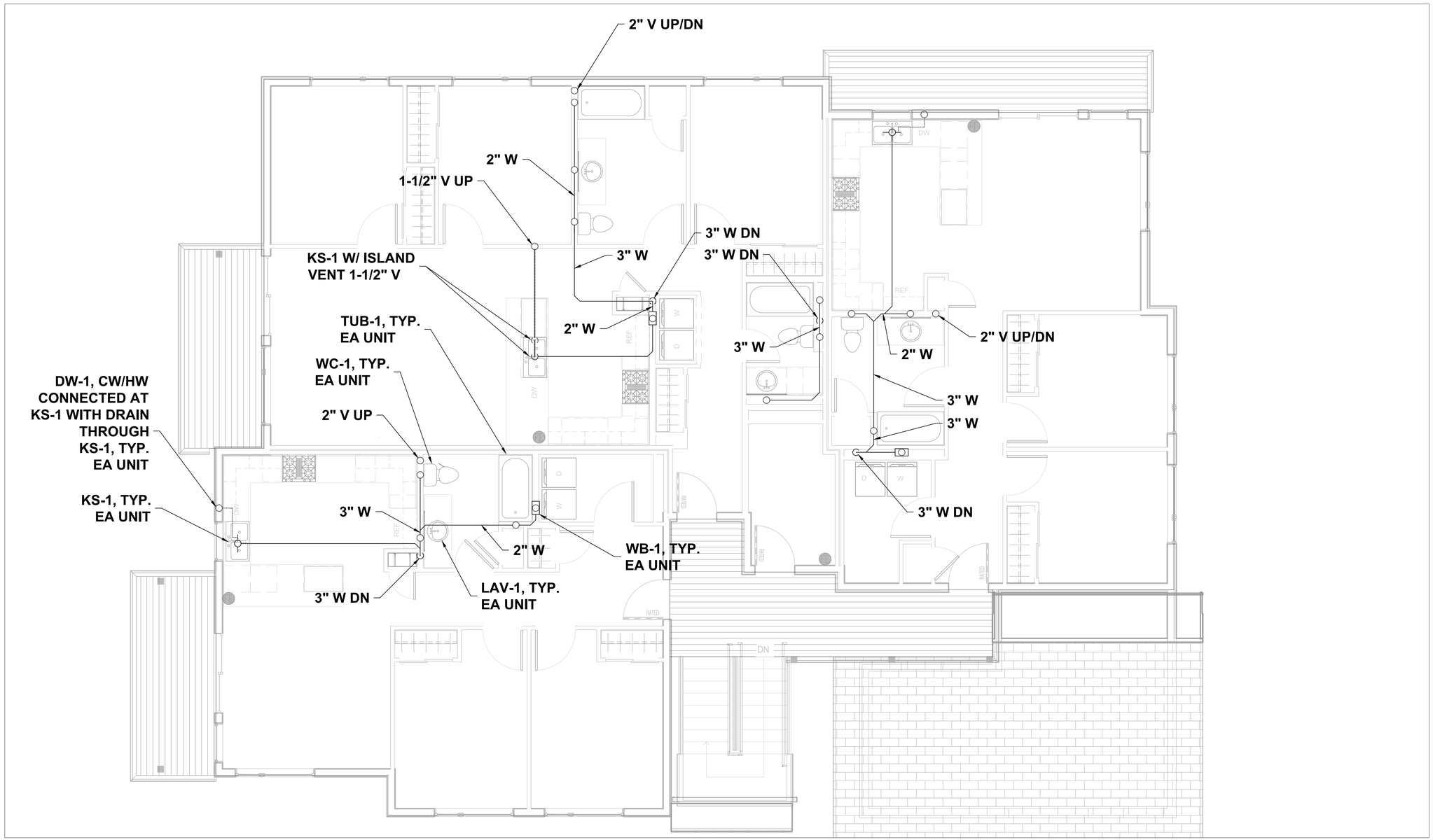
CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED

SHEET NUMBER:

M4.1



1 WASTE/VENT SECOND FLOOR PLAN
1/4" = 1' - 0"

N

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

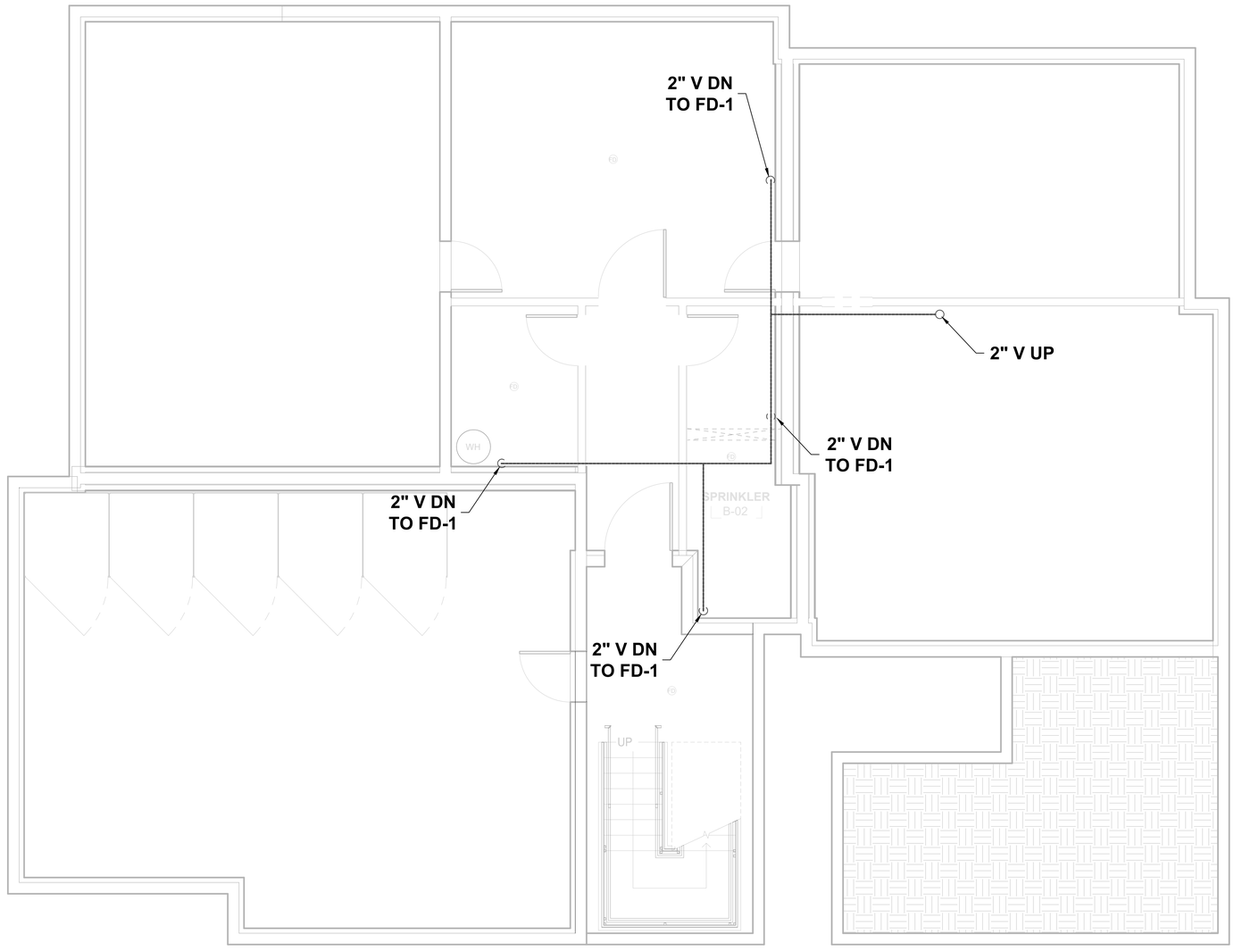
STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER

LIC # 101702
3/23/25

CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED
SHEET NUMBER:	M4.2



1 VENT BASEMENT PIPING PLAN
1/4" = 1' - 0"

N

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

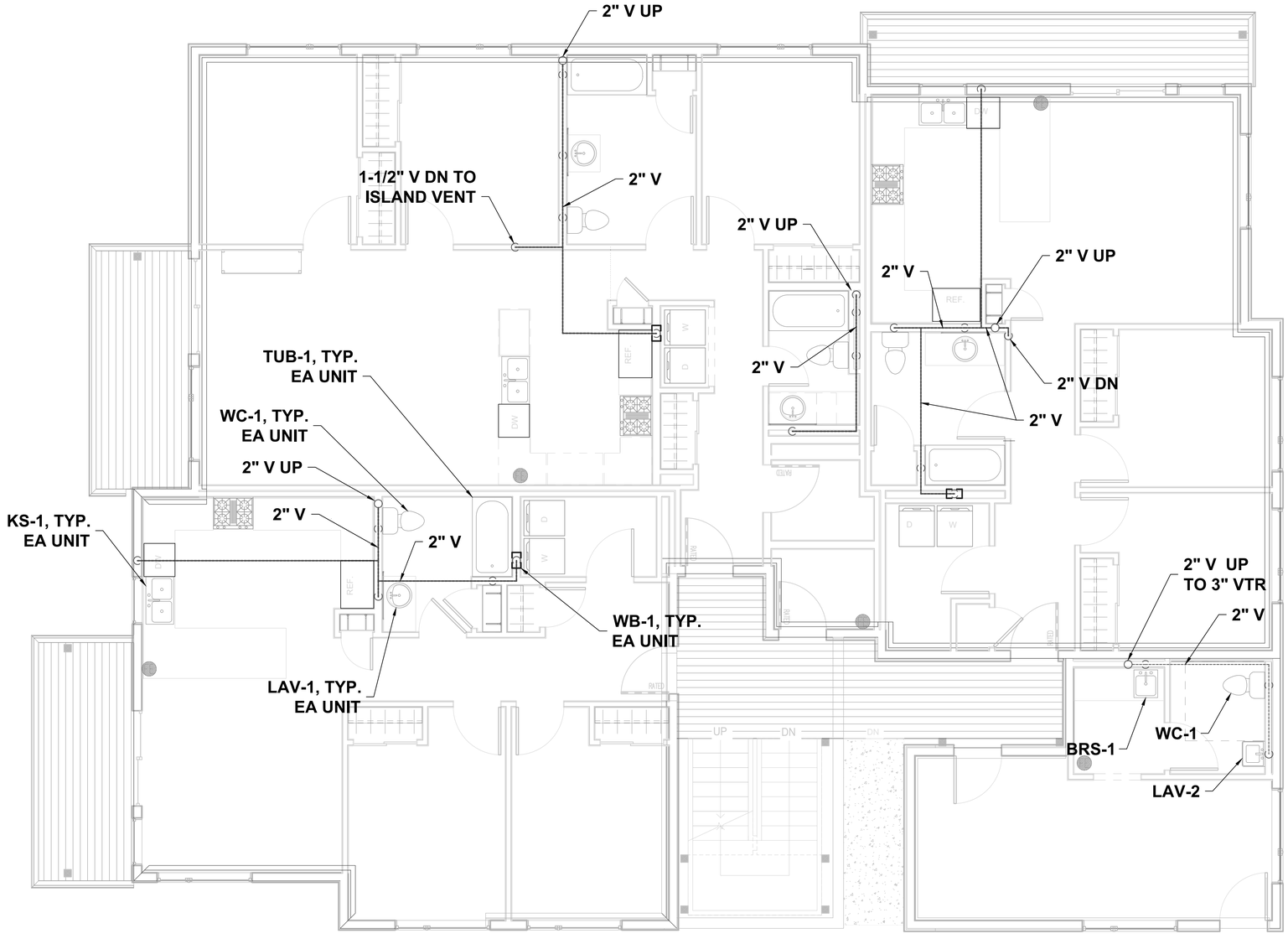
STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER

LIC # 101702
3/23/25

CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED
SHEET NUMBER:	M5.0



1 VENT FIRST FLOOR PIPING PLAN
1/4" = 1' - 0"

N

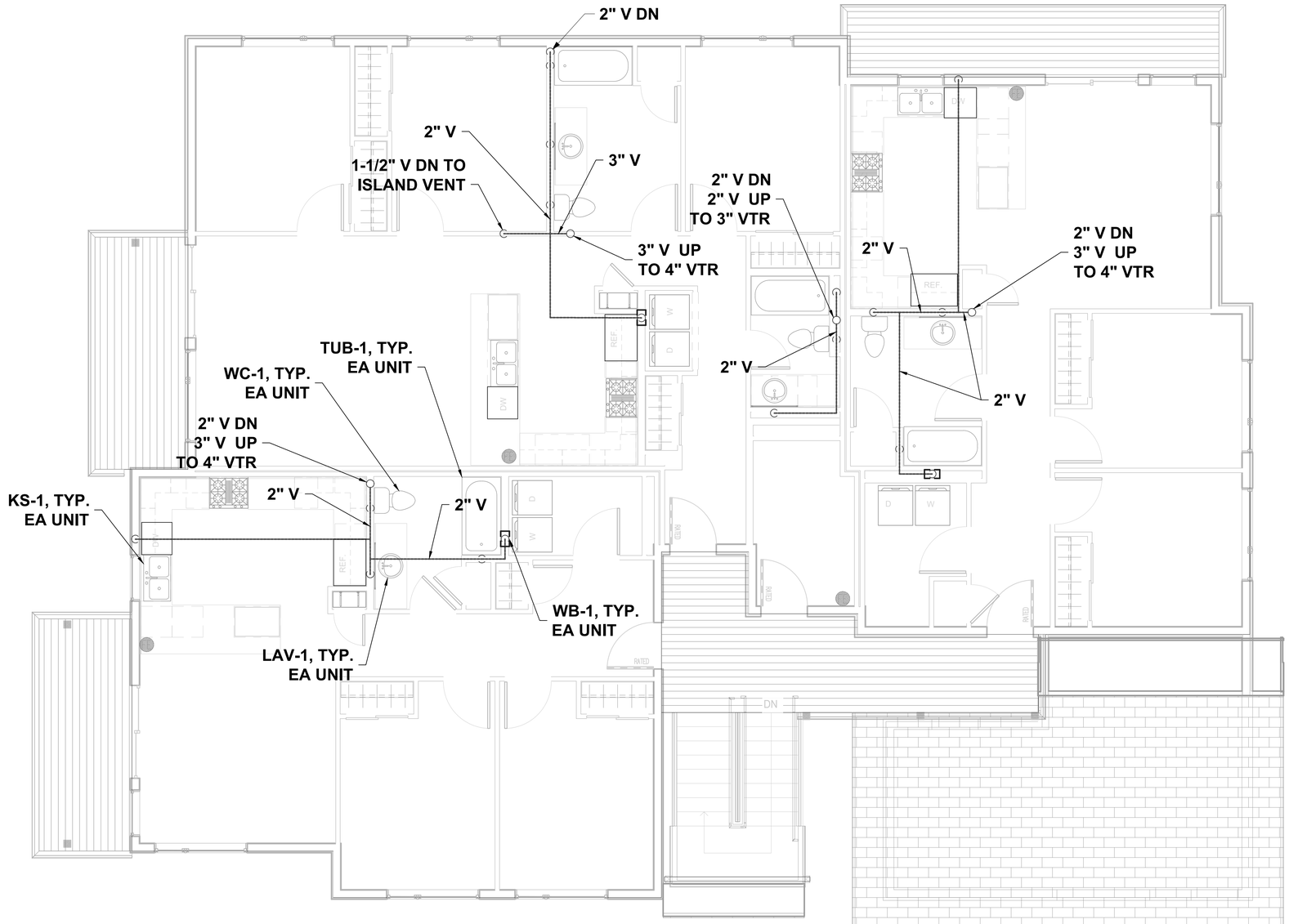
SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED
SHEET NUMBER:	M5.1



1 VENT SECOND FLOOR PIPING PLAN
1/4" = 1' - 0"

N

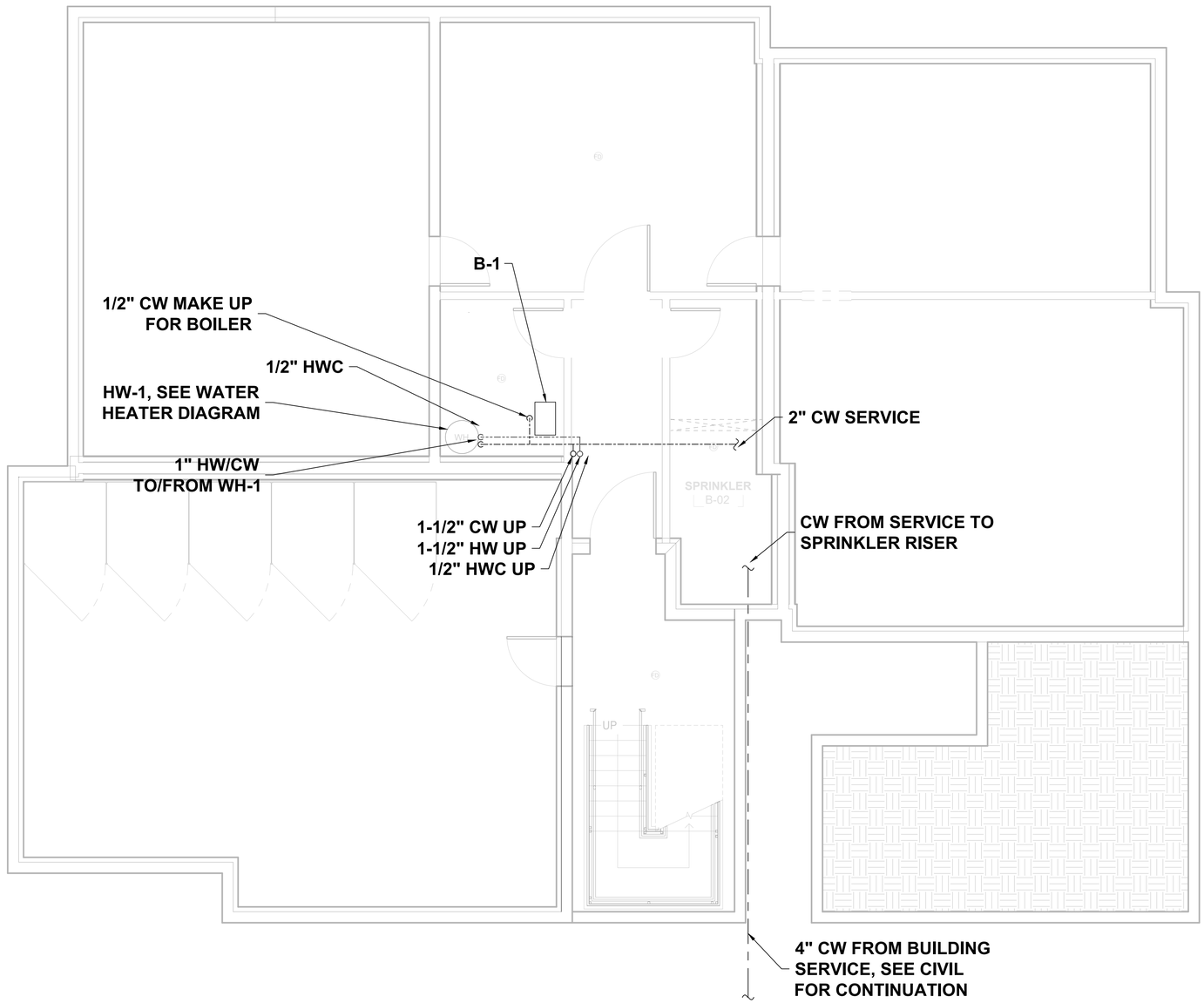
SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED
SHEET NUMBER:	M5.2



1 DOMESTIC WATER BASEMENT PIPING PLAN
1/4" = 1' - 0"

N

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

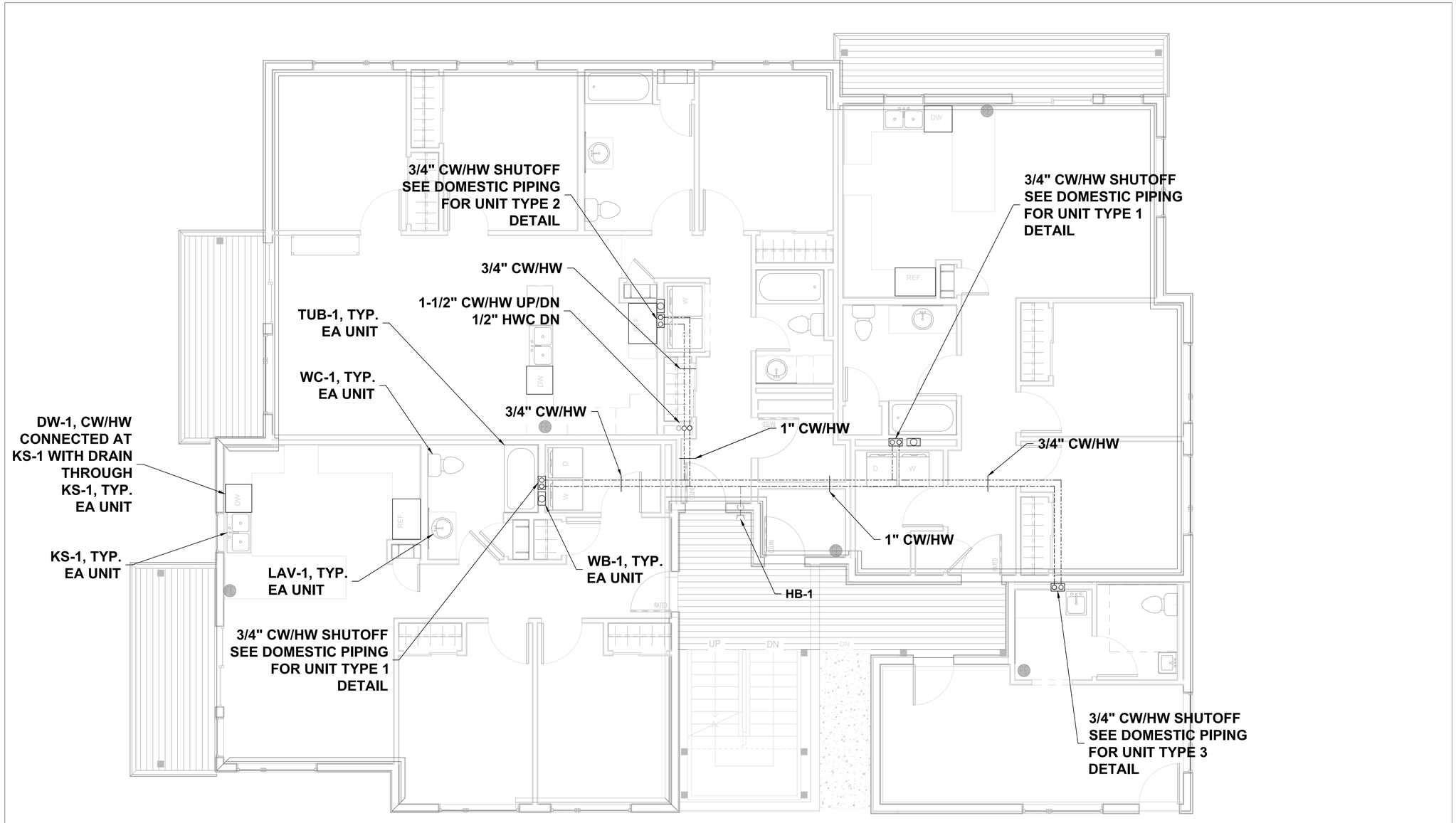
CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED

SHEET NUMBER:

M6.0



1 DOMESTIC WATER FIRST FLOOR PIPING PLAN
1/4" = 1' - 0"

N

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA 49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

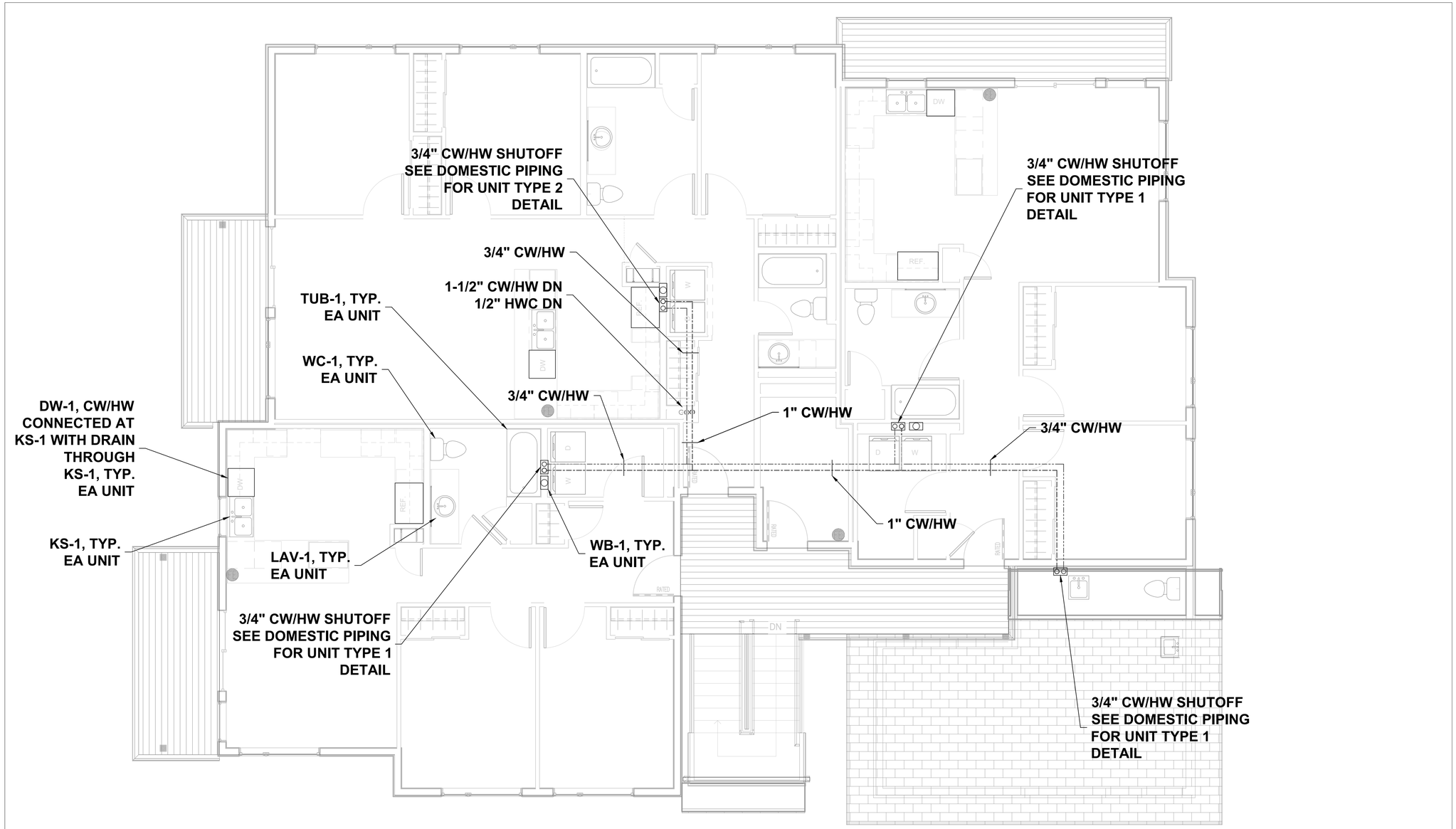
CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED

SHEET NUMBER:

M6.1



1 DOMESTIC WATER SECOND FLOOR PIPING PLAN
1/4" = 1' - 0"

N

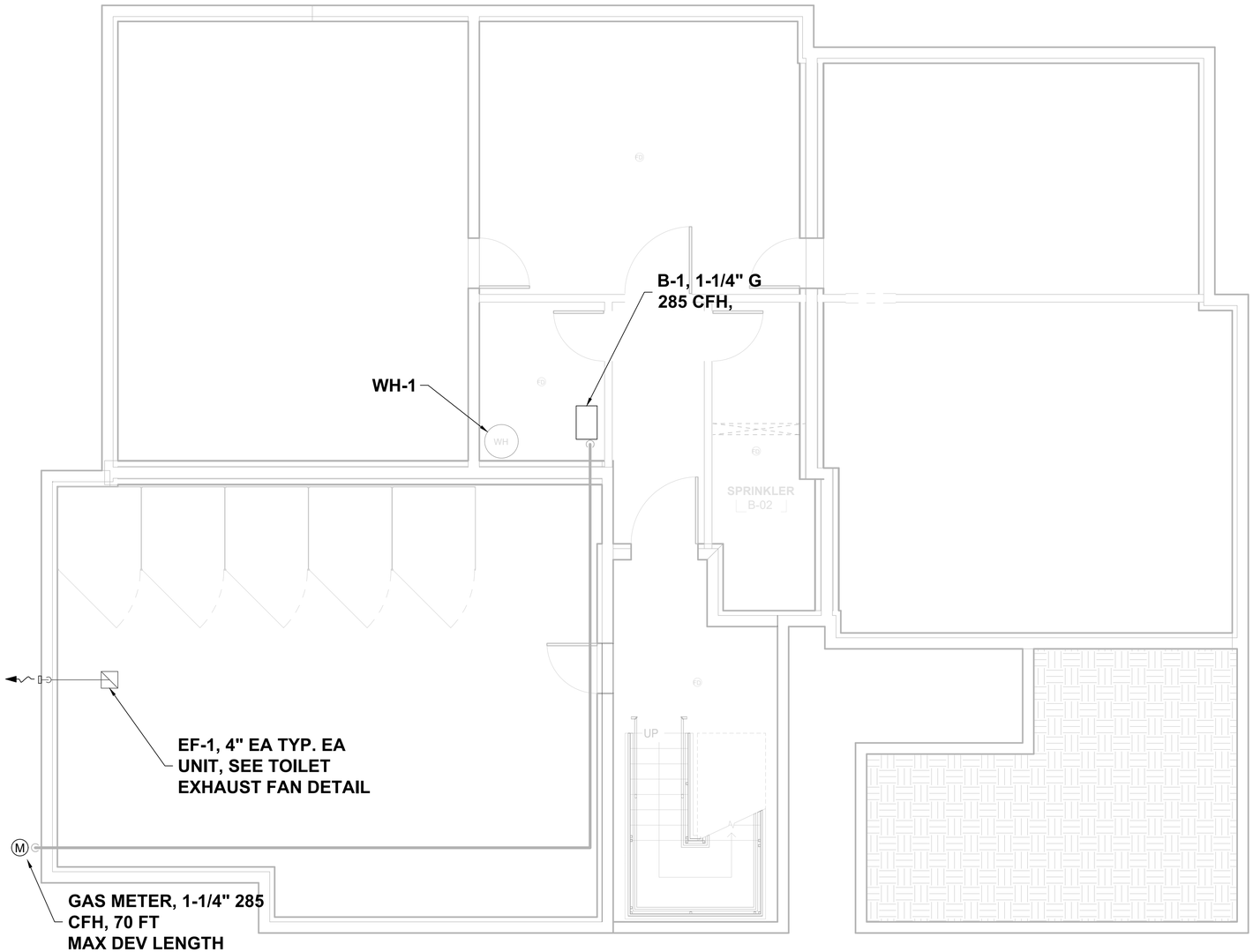
SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA 49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED
SHEET NUMBER:	M6.2



1 VENTILATION AND GAS PIPING BASEMENT PLAN
1/4" = 1' - 0"

N

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

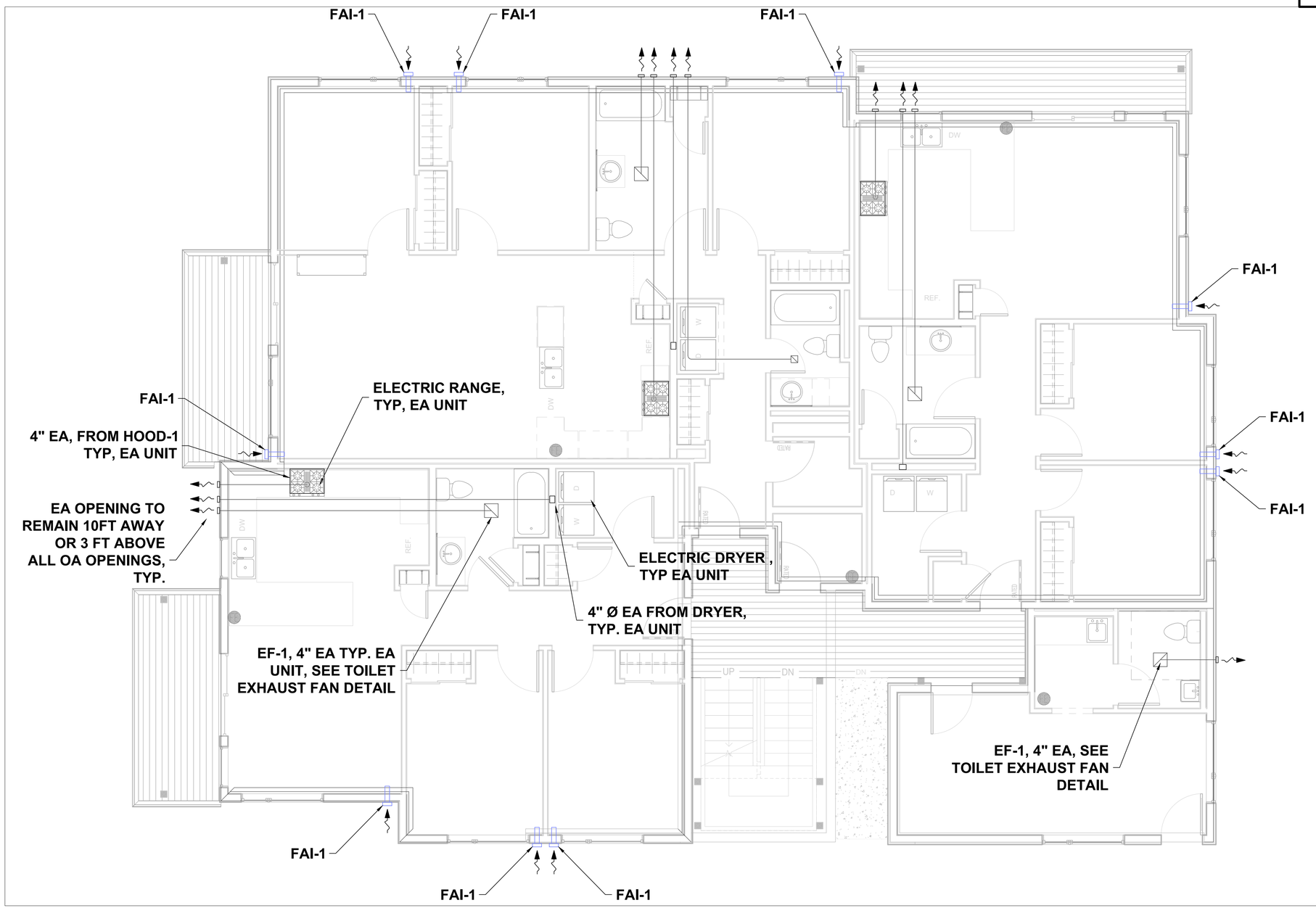
CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED

SHEET NUMBER:

M7.0



1 VENTILATION FIRST FLOOR PLAN
1/4" = 1' - 0"

N

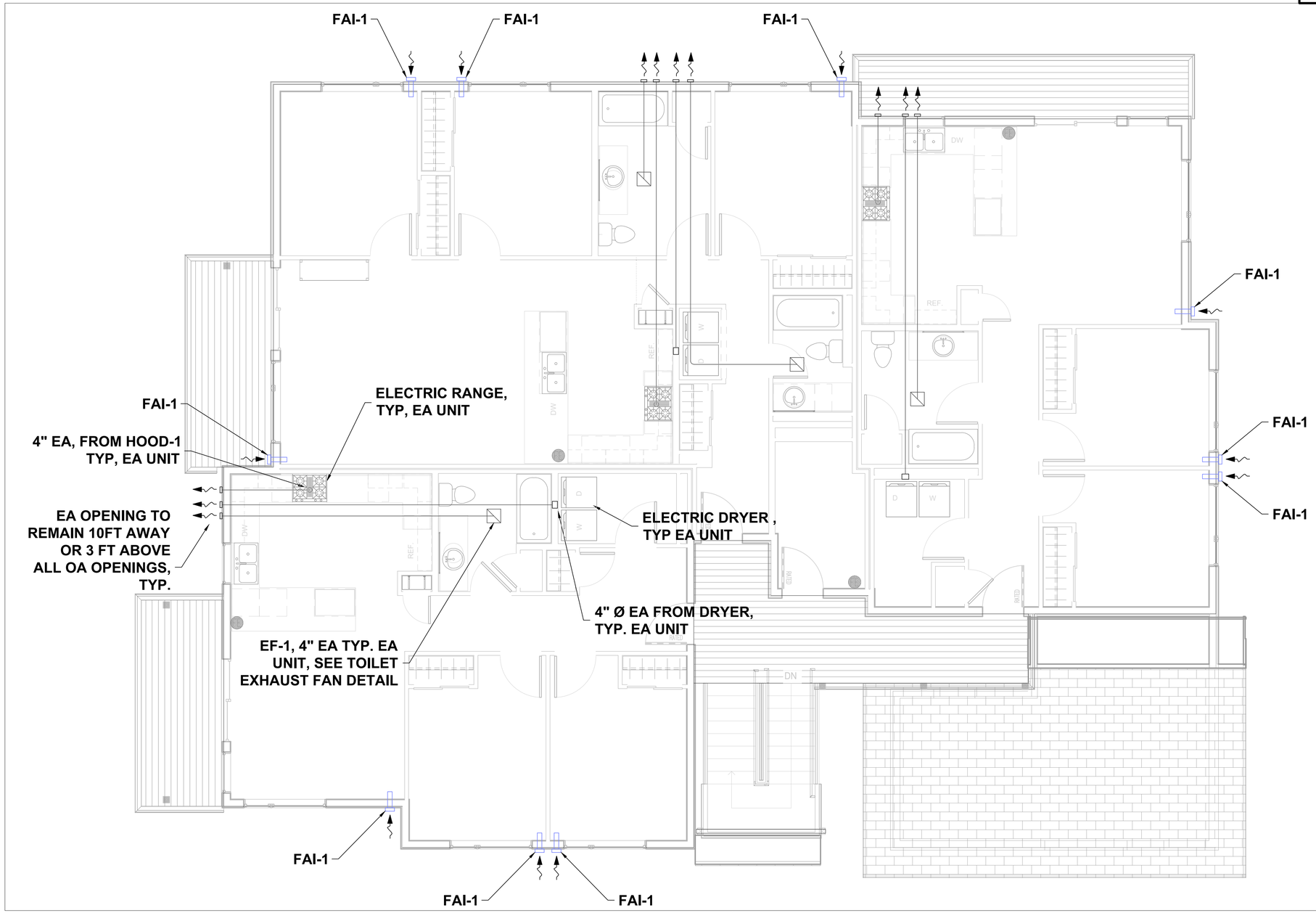
SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA 49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED
SHEET NUMBER:	M7.1



1 VENTILATION SECOND FLOOR PLAN
1/4" = 1' - 0"

N

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER

LIC # 101702
3/23/25

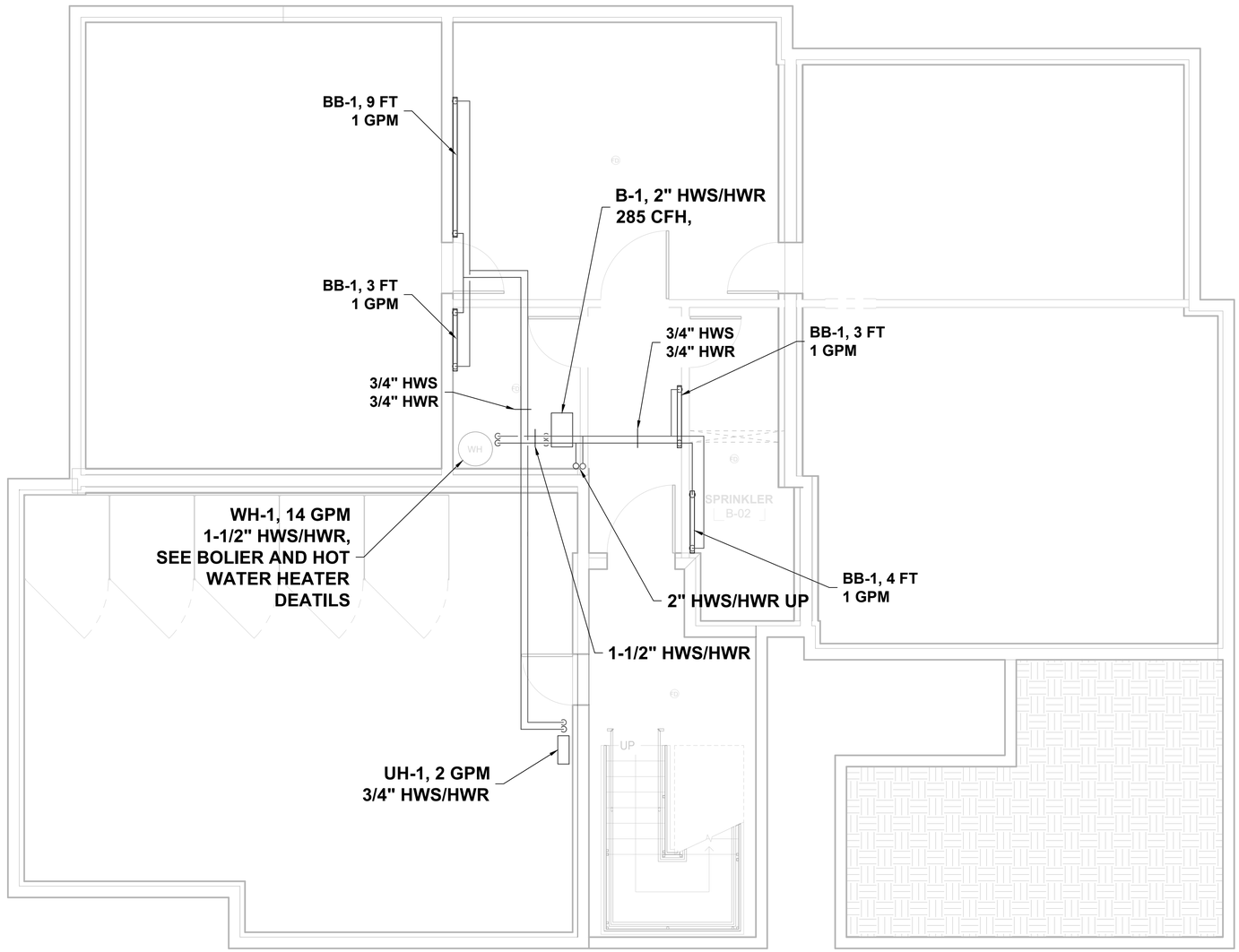
CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED

SHEET NUMBER:

M7.2



1 HEATING BASEMENT PLAN
1/4" = 1' - 0"

N

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

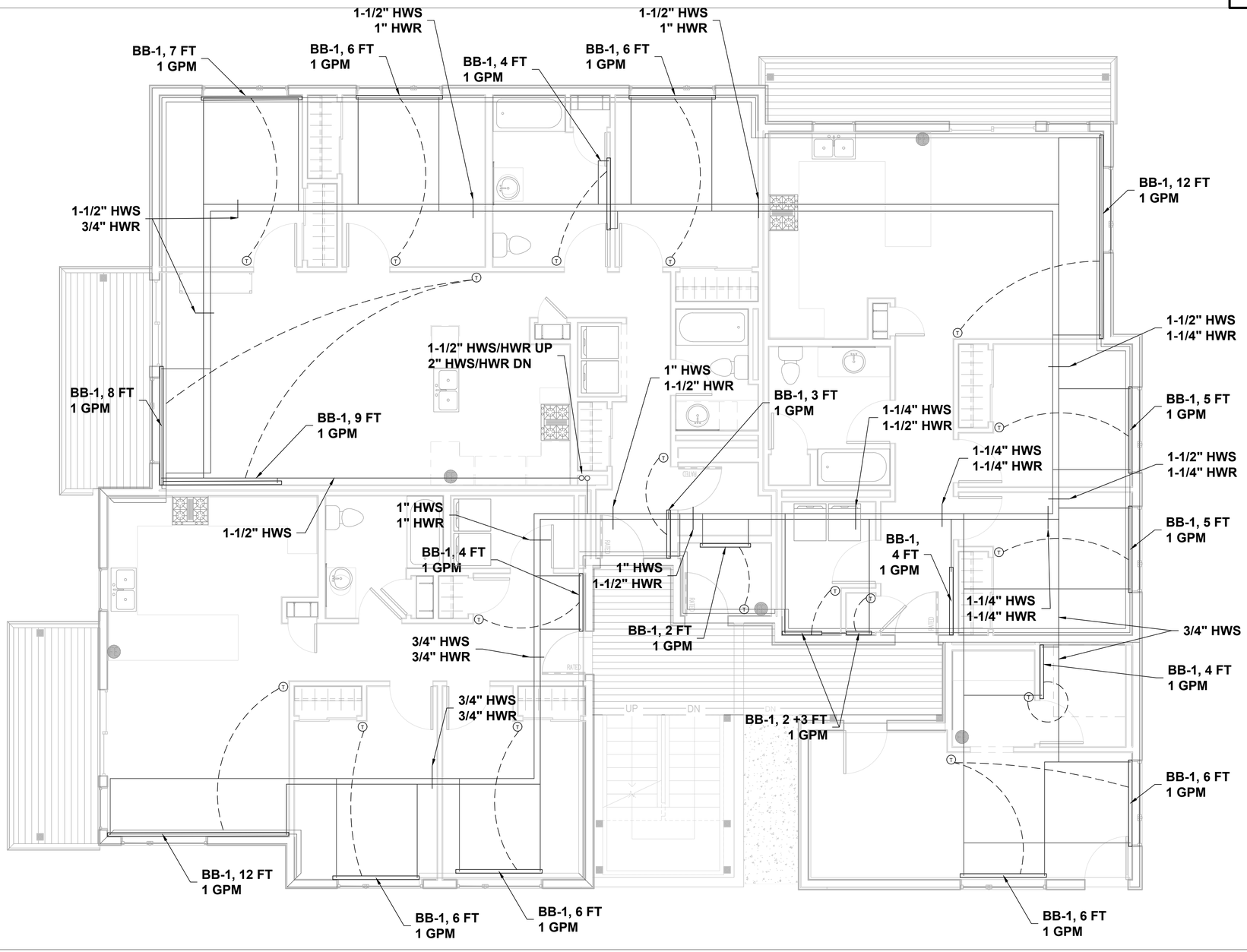
CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED

SHEET NUMBER:

M8.0



1 HEATING FIRST FLOOR PLAN
1/4" = 1' - 0"

N

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

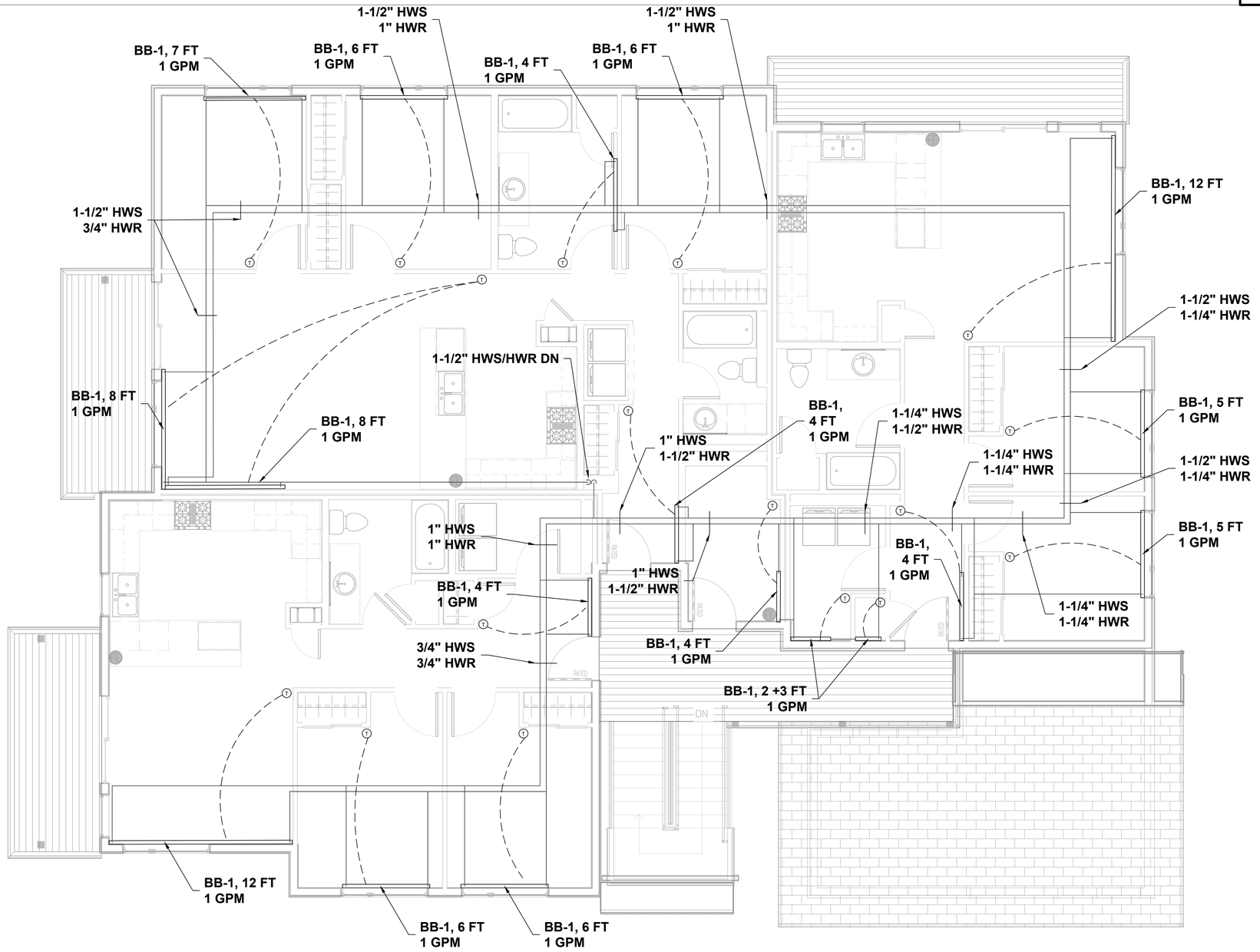
STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER

LIC # 101702
3/23/25

CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED
SHEET NUMBER:	M8.1



1 HEATING SECOND FLOOR PLAN
1/4" = 1' - 0"

N

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA
49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER

LIC # 101702
3/23/25

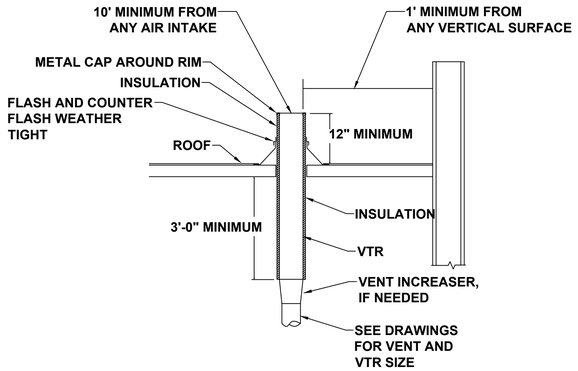
CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

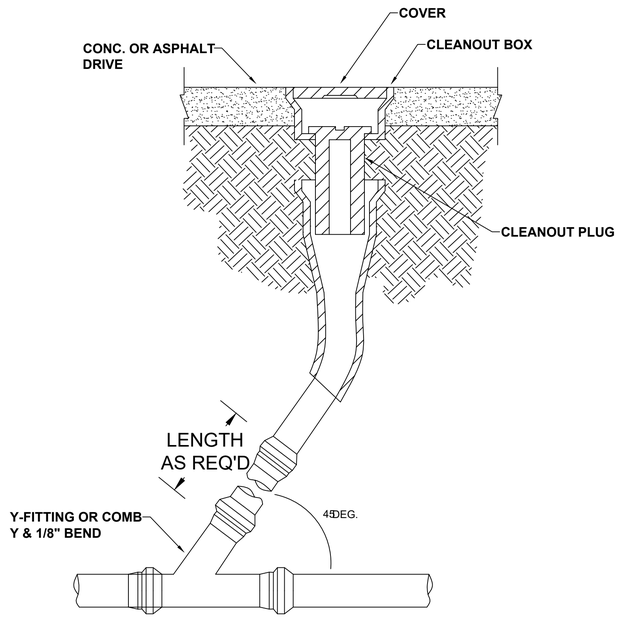
PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED

SHEET NUMBER:

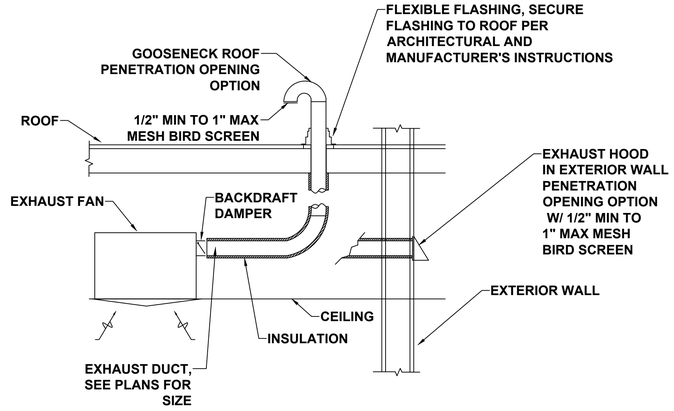
M8.2



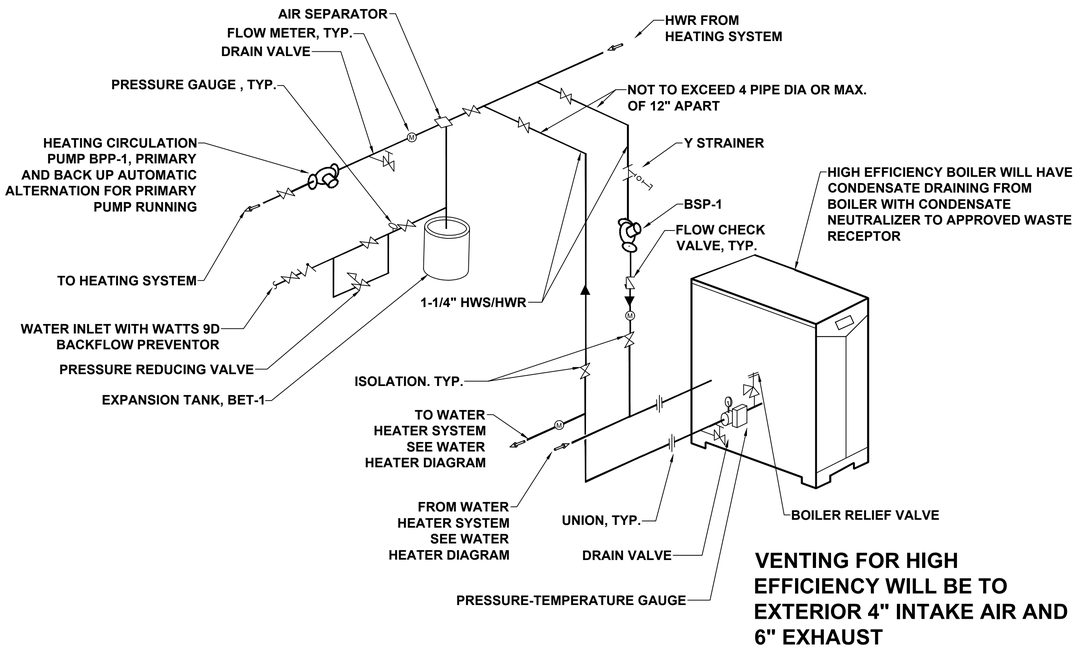
1 PLUMBING VENT THRU ROOF DETAIL
NTS



2 YARD CLEANOUT DETAIL
NTS

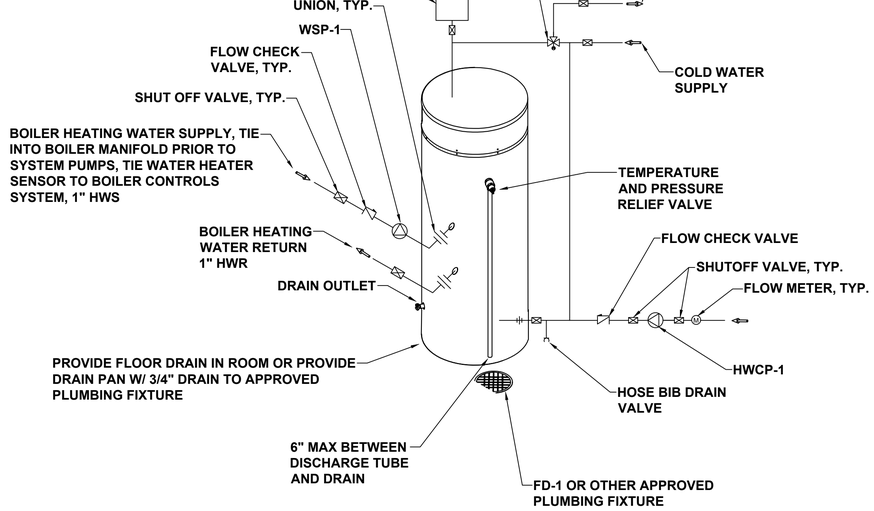


3 TOILET EXHAUST FAN DETAIL
NTS



VENTING FOR HIGH EFFICIENCY WILL BE TO EXTERIOR 4" INTAKE AIR AND 6" EXHAUST

4 HIGH EFFICIENCY BOILER PIPING DIAGRAM
NTS



5 WATER HEATER DIAGRAM
NTS

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA 49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

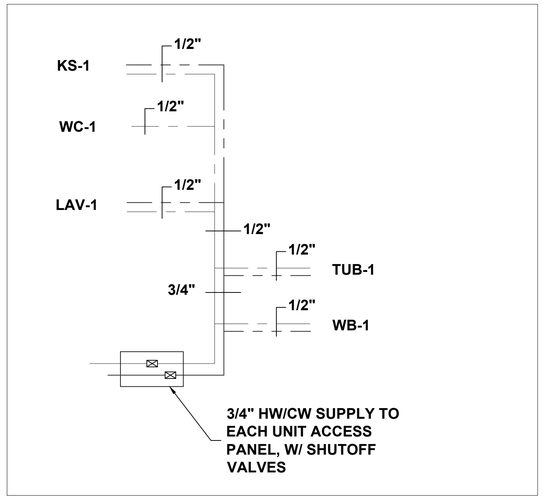
CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

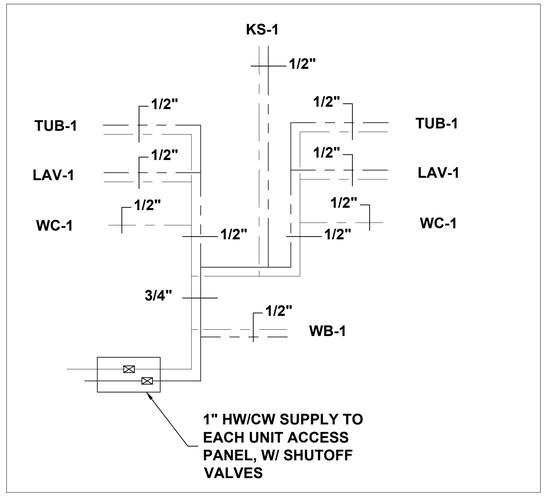
PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED

SHEET NUMBER:

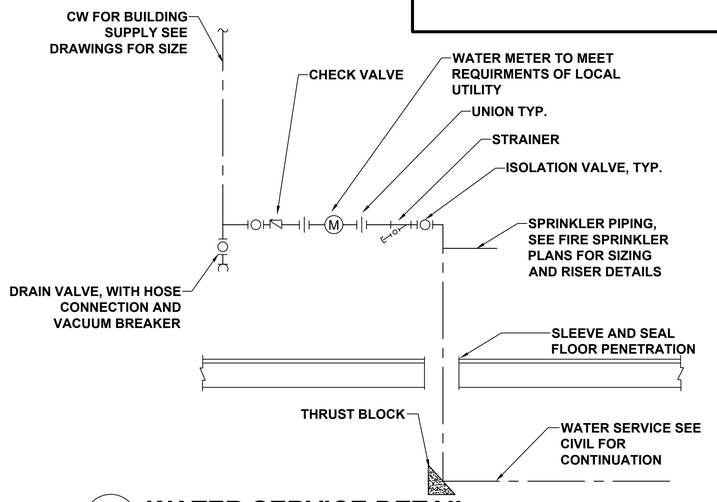
M9.0



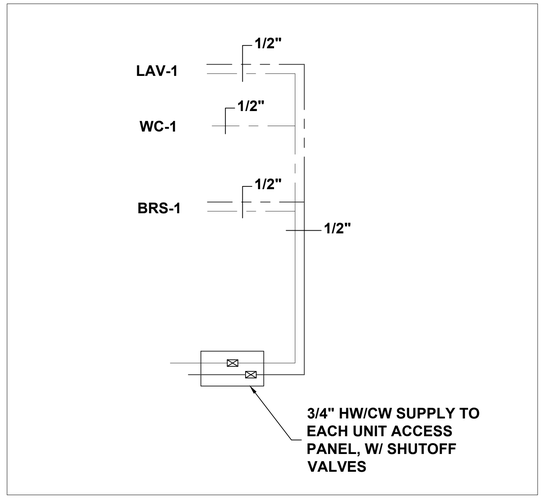
1 DOMESTIC PIPING DETAIL UNIT TYPE 1
NTS



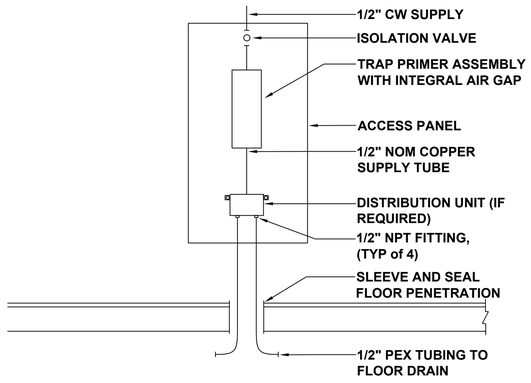
2 DOMESTIC PIPING DETAIL UNIT TYPE 2
NTS



3 WATER SERVICE DETAIL
NTS



4 DOMESTIC PIPING DETAIL UNIT TYPE 3
NTS



5 TRAP PRIMER DETAIL
NTS

SCOPE
7216 LAKE OTIS PKWY
ANCHORAGE, AK 99507

STATE OF ALASKA 49TH
Ron Thompson
No. ME-9246
REGISTERED PROFESSIONAL ENGINEER
LIC # 101702
3/23/25

CIHA BAXTER - BUILDING A
ANCHORAGE, AK 99504

REVISIONS:
1.
2.
3.
4.
5.

PROJECT NR:	2025-15
DATE:	3/23/25
DRAWN BY:	RJT
SCALE:	AS NOTED

SHEET NUMBER:

M9.1