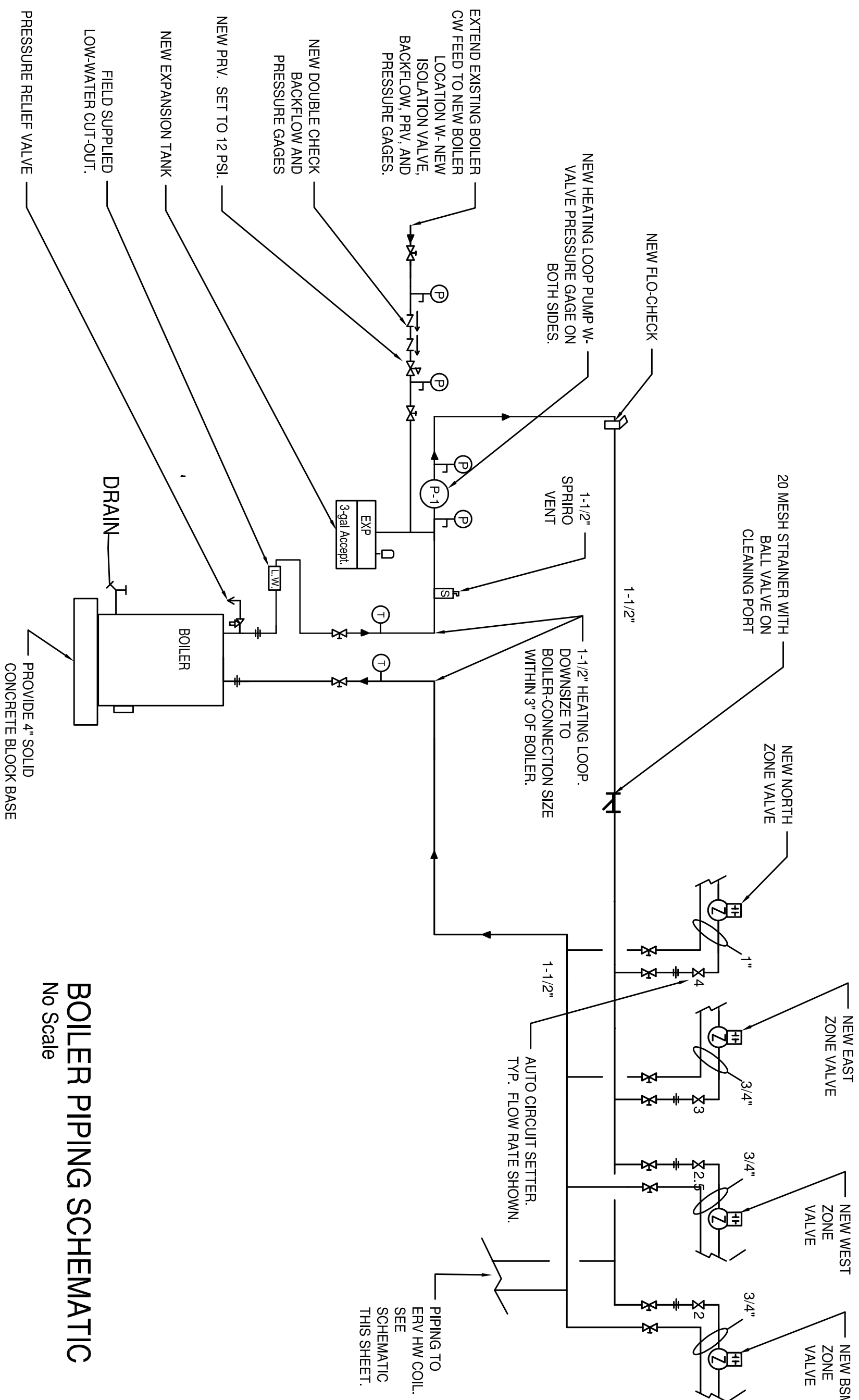


HVAC SCOPE SUMMARY

1. DEMOLITION
 - 1.1. REMOVE ALL EXISTING CAST-IRON STEAM RADIATORS AND SURROUNDING WOODEN ENCLOSURES ON 1ST AND 2ND FLOORS. REMOVE PIPE STUBS THRU FLOOR AND SEALL HOLES.
 - 1.2. EXISTING SYSTEMS IN BASEMENT (BOILERS AND ACCESSORIES, STEAM PIPING AND ACCESSORIES, AND CONDENSATE PIPING) TO BE ABANDONED IN PLACE.
2. HEATING AND COOLING:
 - 2.1. PROVIDE HYPER-HEAT, MULTI-SPLIT, HEAT PUMP UNITS, BRANCH BOXES, AND INDOOR UNITS WITH INTERCONNECTING REFRIGERANT PIPING, WIRING AND CONTROLS PER SCHEDULES.
 - 2.2. PROVIDE A NEW OIL-FIRED BOILER, OIL TANK, OIL PIPING, VARIABLE SPEED HW PUMP AND 3 ZONE VALVES PER THE DRAWING SCHEDULE.
 - 2.3. PROVIDE HW BASEBOARD RADIATION, HWS-HWR PIPING, PIPE INSULATION, ZONE VALVES AND THERMOSTATS.
 - 2.4. PROVIDE ALL REQUIRED ACCESSORIES AND CONTROLS FOR COMPLETE AND OPERATING SYSTEMS.
3. VENTILATION AND EXHAUST
 - 3.1. PROVIDE A DUCTED ENERGY RECOVERY-VENTILATOR (ERV) FOR CODE-REQUIRED EXHAUST AND FRESH AIR, WITH HW COIL AND CONTROL VALVE TO MAINTAIN CONSTANT DISCHARGE TEMPERATURE IN HEATING MODE, AND DUCTED INDOOR UNIT TO PROVIDE TEMPERED FRESH AIR IN COOLING MODE.
 - 3.2. PROVIDE SEALED, GALVANIZED STEEL, FRESH-AIR AND EXHAUST DUCTS. DUCT PENETRATIONS THRU EXTERIOR WALLS SHALL HAVE LOW-LEAK MOTORIZED DAMPERS AND 45-DOWN TERMINATIONS WITH 1/4" MESH SCREENS. PROVIDE RETURN AIR FAN TO MIX WITH ERV SA TO OBTAIN REQUIRED INPUT CONDITIONS FOR DUCTED HP INDOOR UNITS.
 - 3.3. DUCT INSULATION: 2" DUCT-WRAP (RS-INSTALLED) ON ALL ERV OA INTAKE, AND ALL SA OUTLET AND RA INLET DUCTS. NO INSULATION REQUIRED ON ERV EA DISCHARGE DUCT.
 - 3.4. ALL REQUIRED ACCESSORIES AND CONTROLS FOR COMPLETE AND OPERATING SYSTEMS PER PIPING SCHEMATICS AND THE SEQUENCE OF OPERATIONS.
4. CONTROLS: - PROVIDE ALL CONTROL COMPONENTS REQUIRED FOR THE DRAWING SEQUENCES OF OPERATION. MAKE ALL CONTROL WIRING TERMINATIONS.
 - 4.1. ALL CONTROL WIRING SHALL BE PULLED BY A LICENSED ELECTRICIAN IN THE EMPLOY OF THE HVAC CONTRACTOR.
 - 4.2. ALL POWER WIRING AND TERMINATIONS BY AN ELECTRICIAN IN THE EMPLOY OF THE HVAC CONTRACTOR.
5. PROOF ALL EQUIPMENT AND CONTROLS OPERATION IN THE PRESENCE OF THE ENGINEER. REPAIR ALL DEFECTS.
6. OBTAIN ALL PERMITS AND INSPECTIONS. FIRE-STOP ALL FLOORS. AIR AND WATER SEAL ALL EXTERIOR WALL PENETRATIONS ON BOTH SIDES.
7. PROVIDE SUBMITTALS, ACCURATE AS-BUILT DRAWINGS, O&M MANUALS, AND 1-YEAR WARRANTY.
8. PROVIDE A VIDEO-TAPED, MIN. 1 HOUR TRAINING TO OWNERS PERSONNEL IN SYSTEMS OPERATION, AND ROUTINE MAINTENANCE



BOILER PIPING SCHEMATIC

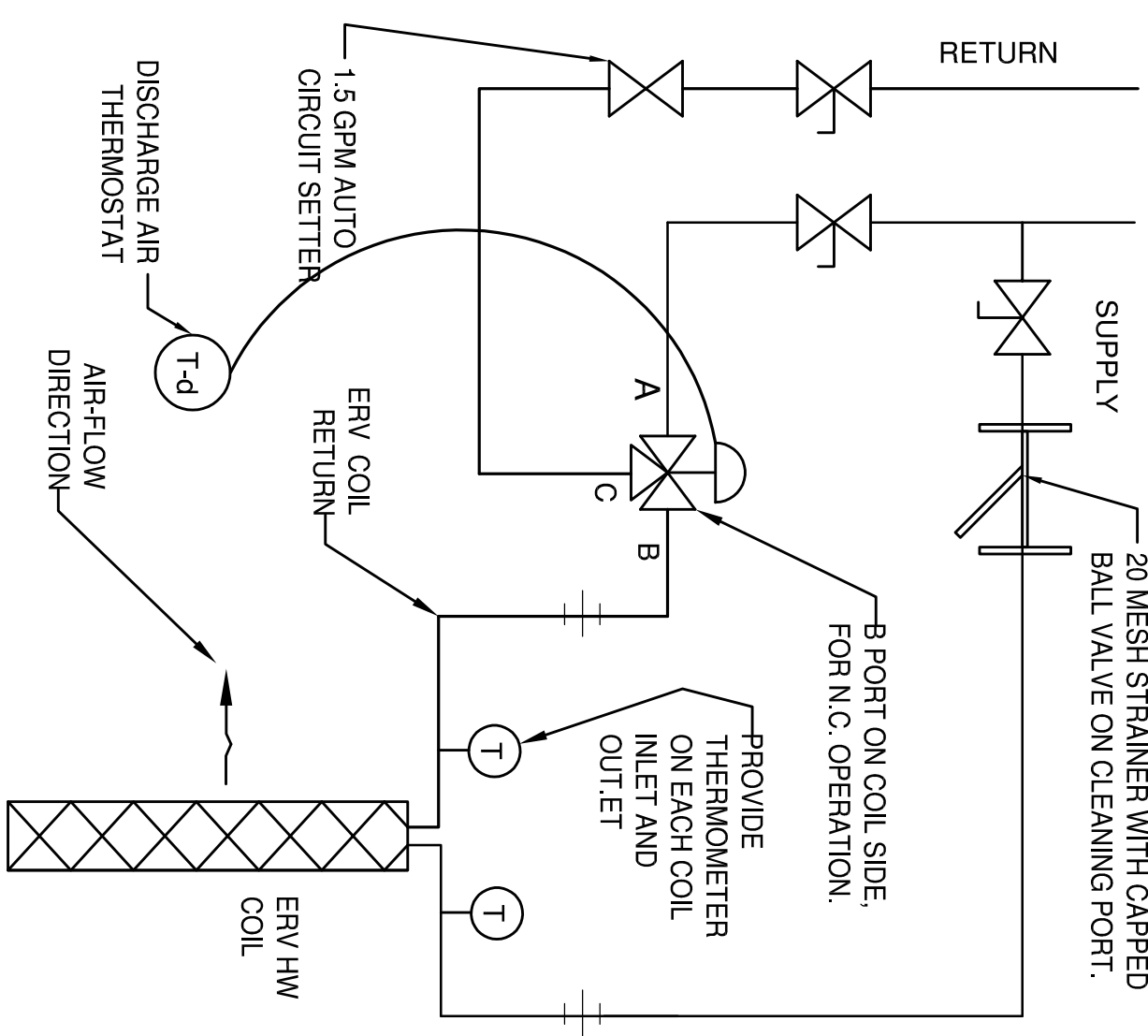
No Scale

LEGEND DUCTING LEGEND

	DUCT END VIEW: NEGATIVE PRESSURE
	DUCT END VIEW: POSITIVE PRESSURE
	NEW SA DUCT - 1ST DIMENSION SHOWN
	NEW RA DUCT - 1ST DIMENSION SHOWN
	NEW OA DUCT - 1ST DIMENSION SHOWN
	NEW EXH DUCT - 1ST DIMENSION SHOWN
	NEW WALL SA REGISTER
	NEW WALL EXHAUST REGISTER
	NEW FLOOR RETURN REGISTER
	HW BASEBOARD THERMOSTAT FOR ZONE X
	LOW-LEAKAGE MOTORIZED DAMPER
	VOLUME DAMPER
	CONTROL WIRING - INDICATES CONTROL CONNECTION - NOT ACTUAL ROUTE

GENERAL NOTES

1. ALL WORK MUST BE INSPECTED AND APPROVED BY SENSIBLE SOLUTIONS, NON-COMFORMING WORK SHALL BE CORRECTED AT NO EXTRA COST TO THE OWNER.
2. DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DO NOT SHOW EVERY DETAIL, OFFSET, ETC REQUIRED FOR A COMPLETE INSTALLATION. THE CONTRACTOR SHALL INCLUDE IN HIS PRICE, ALL EXPENSES REQUIRED TO PROVIDE COMPLETE AND OPERATING SYSTEMS.
3. LOCATIONS OF EQUIPMENT AND DISTRIBUTION SYSTEMS ARE APPROXIMATE. EXACT LOCATIONS TO SECURE THE BEST RESULTS SHALL BE DETERMINED IN THE FIELD. COORDINATE WORK WITH BUILDING STRUCTURE AND OTHER TRADES TO AVOID CONFLICTS.
4. ALL WORK TO BE DONE IN ACCORDANCE WITH THE MOST RECENT PRINTING OF APPLICABLE NATIONAL, STATE AND LOCAL CODES, AND RECOMMENDED PRACTICES.
5. ALL INSTALLATIONS SHALL BE PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS.
6. "PROVIDE" MEANS TO FURNISH AND INSTALL IN A NEAT AND WORKMAN-LIKE MANNER. ALL MATERIALS AND LABOR REQUIRED FOR A COMPLETE, OPERATING SYSTEM.
7. "REMOVE" MEANS TO REMOVE THE SPECIFIED DEVICE, ALONG WITH ALL ASSOCIATED SUPPORTS, FASTENERS, TRIM, ACCESSORIES, AND CONTROLS. LEGALLY DISPOSE OFF-SITE, AND CLEAN-UP SURROUNDING AREA.
8. SOME WORK SHOWN EXCEEDS CODE. PRICE WHAT IS SHOWN.



ERV HW COIL PIPING SCHEMATIC

No Scale

DRAWING TITLE SCOPE SUMMARY, LEGEND AND SCHEMATICS	
JOB TITLE COMMUNITY ACTION HEAD START HVAC UPGRADES 34 CENTRAL ST TURNER'S FALLS, MA 01376	
ENGINEER SENSIBLE SOLUTIONS 64 KNIGHTLY RD HADLEY, MA. CELL : (413) 549-5593 PO BOX 905 BRATTLEBORO, VT 05302	
REVISIONS: ADDENDUM 1 7-15-15	
BID SET	DRAWING NO. HH1
SCALE AS SHOWN	DRAWING 1 OF 7 DATE MAY, 2022