



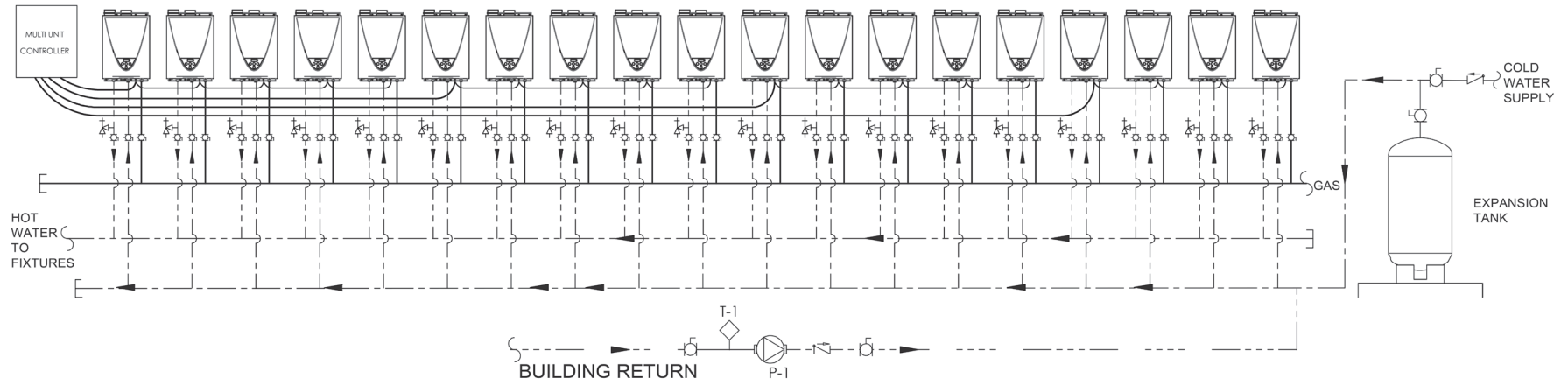
**SCT-199 - NINETEEN WATER HEATERS, DIRECT PLUMBING WITH RECIRCULATION**

**LEGEND**

|  |                                     |  |                   |  |                 |
|--|-------------------------------------|--|-------------------|--|-----------------|
|  | TEMPERATURE & PRESSURE RELIEF VALVE |  | BALL VALVE        |  | COLD            |
|  | PRESSURE RELIEF VALVE               |  | TEMPERATURE GAUGE |  | HOT             |
|  | CIRCULATING PUMP                    |  | CHECK VALVE       |  | BUILDING RETURN |
|  | TEMPERATURE CONTROL PROBE           |  | WATER FLOW SWITCH |  | GAS             |
|  | DRAIN                               |  |                   |  |                 |

**WARNING:** THIS DRAWING SHOWS SUGGESTED PIPING CONFIGURATION AND OTHER DEVICES; CHECK WITH LOCAL CODES AND ORDINANCES FOR ADDITIONAL REQUIREMENTS.

DRAWING SHOWS INDOOR UNITS. OUTDOOR UNITS ARE PIPED IN THE SAME MANNER.



- NOTES:
1. Building recirculation pump, P-1, to be sized, installed and controlled by installer. The recirculation pump should provide no less than 2 gpm per activated heater and no more than 4 gpm per activated heater. Refer to the heater's specification sheet for pressure drop information.
  2. Return pump, P-1, should be controlled by an aquastat, T-1, having an adjustable differential. Minimum differential should be 15°F.
  3. Installation of a device to minimize scale deposits, such as the Product Preservers®, water softener, etc. should be considered. Refer to the heater's installation manual for additional information and/or consult with a local water quality expert.
  4. Gas supply line shall be sized per the heater's installation manual and the current edition of ANSI Z223.1/NFPA 54.
  5. Automatic air vent should be installed at the highest point in the system for all installations using a circulation pump.