Note:

Condensate piping shall be CPVC or PVC material and shall not be smaller than the drain connection on the appliance.

Components of the condensate drainage shall be CPVC or PVC material. All components shall be selected for the pressure and temperature rating of the installation.

Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with an approved method as dictated
by local codes.

Condensate must be disposed of according to local codes.

Pump should be controlled by an adjustable Aquastat or Combination Aquastat and Timer. Aquastat should have 10-20F differential of water heater set temperature.

Pump should be sized to maintain circulation loop temperature.

Circulation flow rate should not exceed 3 GPM per water heater and should be no more than 8 GPM where multiple water heaters are installed.

Pump should be sized to overcome the pressure loss through the water heater, supply, and return plumbing. Reference the Rinnai Hot Water System Design Manual for pump sizing guidelines.

Pump should be of bronze or stainless construction.

Reference the Common Vent Installation Manual for common vent options where applicable.
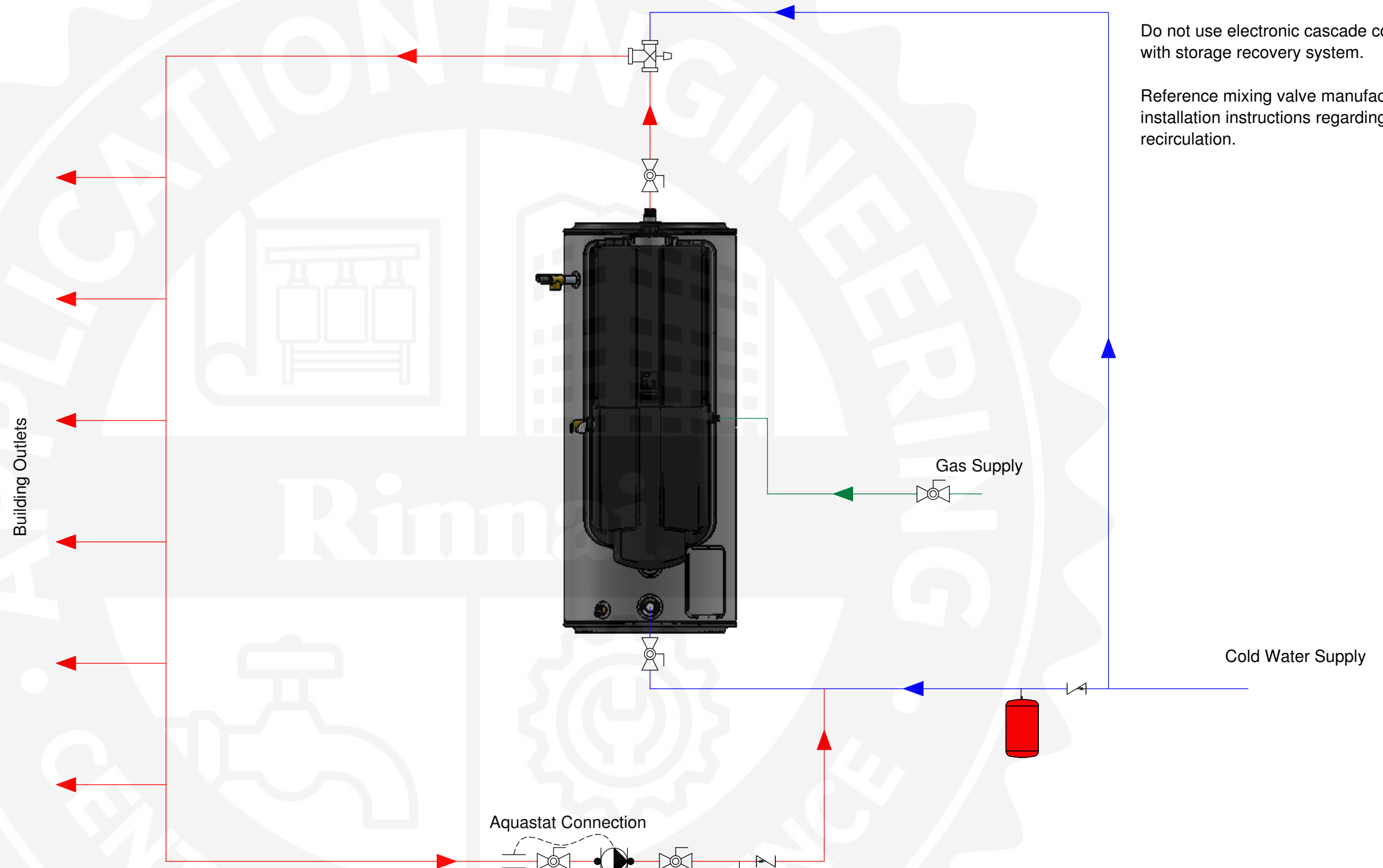
Balanced piping is critical to maintain even operation of all water heaters. Ensure Plumbing system is balnced or piped in reverse return as shown.

Ensure check valve is installed on hot water return line to prevent cold water infiltration.

For this application:

Do not use electronic cascade controls with storage recovery system.

Reference mixing valve manufacturer installation instructions regarding recirculation.

Building Outlets

Gas Supply

Cold Water Supply

Aquastat Connection

THIRD ANGLE PROJECTION

RINNAI AMERICA CORPORATION
103 INTERNATIONAL DRIVE
PEACHTREE CITY, GA 30269
1-800-621-9419

PROPRIETARY AND CONFIDENTIAL

This is not an engineering drawing; it is intended only as a guide and not as a replacement for professional engineering project drawings. This drawing is not intended to describe a complete system. It is up to the contractor or engineer to determine the necessary components and configuration of the particular system to be installed. The drawing does not imply compliance with local building code requirements. It is the responsibility of the engineer or contractor to ensure that the installation is in accordance with all local building codes. Confer with local building officials before installation.

UNLESS OTHERWISE SPECIFIED:

TOLERANCES:
Sheet Metal X.XX = ±0.030
X.XXX = ±0.010
Fraction = ±1/32
Angle = ± 1.0°
MACHINED X.XXX = ±0.005
Angle = ± 0.010°

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL

FINISH

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	AB	11.13.2018
CHECKED	SH	12.15.2018
ENG APPR.	RS	12.15.2018
COMMENTS:		

Rinnai®

TITLE:
Systems Design Manual
Commercial Hybrid System
Single Unit Low Temp Circulation

SIZE	DWG. NO.	REV
B	CHS199-1-LT	

SCALE: NTS | WEIGHT: | SHEET 1 OF 1