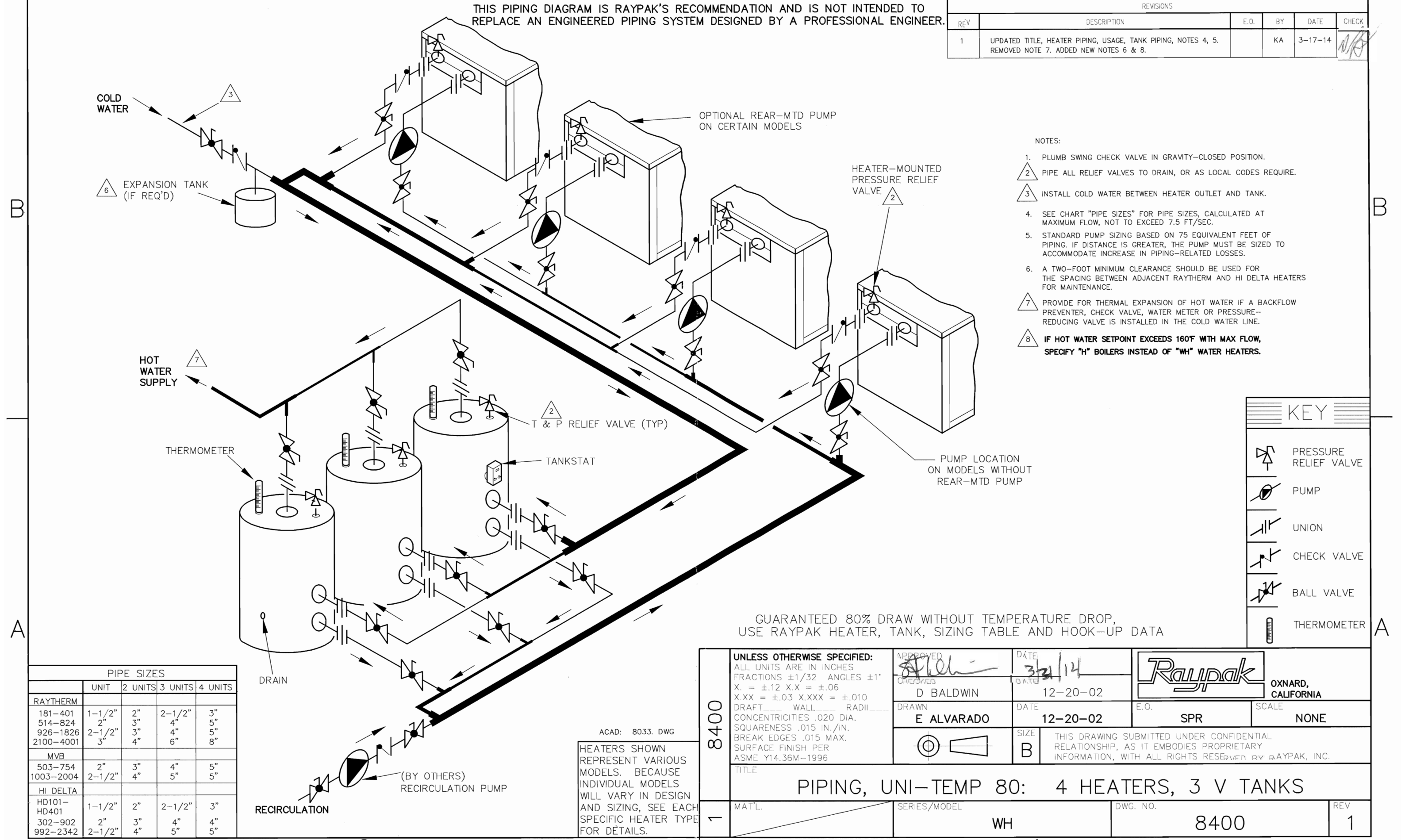


THIS PIPING DIAGRAM IS RAYPAK'S RECOMMENDATION AND IS NOT INTENDED TO REPLACE AN ENGINEERED PIPING SYSTEM DESIGNED BY A PROFESSIONAL ENGINEER.

| REVISIONS | | | | |
|-----------|--|------|----|---------|
| REV | DESCRIPTION | E.O. | BY | CHECK |
| 1 | UPDATED TITLE, HEATER PIPING, USAGE, TANK PIPING, NOTES 4, 5. REMOVED NOTE 7. ADDED NEW NOTES 6 & 8. | | KA | 3-17-14 |

NOTES:

1. PLUMB SWING CHECK VALVE IN GRAVITY-CLOSED POSITION.
2. PIPE ALL RELIEF VALVES TO DRAIN, OR AS LOCAL CODES REQUIRE.
3. INSTALL COLD WATER BETWEEN HEATER OUTLET AND TANK.
4. SEE CHART "PIPE SIZES" FOR PIPE SIZES, CALCULATED AT MAXIMUM FLOW, NOT TO EXCEED 7.5 FT/SEC.
5. STANDARD PUMP SIZING BASED ON 75 EQUIVALENT FEET OF PIPING. IF DISTANCE IS GREATER, THE PUMP MUST BE SIZED TO ACCOMMODATE INCREASE IN PIPING-RELATED LOSSES.
6. A TWO-FOOT MINIMUM CLEARANCE SHOULD BE USED FOR THE SPACING BETWEEN ADJACENT RAYTHERM AND HI DELTA HEATERS FOR MAINTENANCE.
7. PROVIDE FOR THERMAL EXPANSION OF HOT WATER IF A BACKFLOW PREVENTER, CHECK VALVE, WATER METER OR PRESSURE-REDUCING VALVE IS INSTALLED IN THE COLD WATER LINE.
8. IF HOT WATER SETPOINT EXCEEDS 160°F WITH MAX FLOW, SPECIFY "H" BOILERS INSTEAD OF "WH" WATER HEATERS.



| KEY | |
|-----|-----------------------|
| | PRESSURE RELIEF VALVE |
| | PUMP |
| | UNION |
| | CHECK VALVE |
| | BALL VALVE |
| | THERMOMETER |

GUARANTEED 80% DRAW WITHOUT TEMPERATURE DROP, USE RAYPAK HEATER, TANK, SIZING TABLE AND HOOK-UP DATA

| PIPE SIZES | | | | |
|-----------------|--------|---------|---------|---------|
| | UNIT | 2 UNITS | 3 UNITS | 4 UNITS |
| RAYTHERM | | | | |
| 181-401 | 1-1/2" | 2" | 2-1/2" | 3" |
| 514-824 | 2" | 3" | 4" | 5" |
| 926-1826 | 2-1/2" | 3" | 4" | 5" |
| 2100-4001 | 3" | 4" | 6" | 8" |
| MVB | | | | |
| 503-754 | 2" | 3" | 4" | 5" |
| 1003-2004 | 2-1/2" | 4" | 5" | 5" |
| HI DELTA | | | | |
| HD101-HD401 | 1-1/2" | 2" | 2-1/2" | 3" |
| 302-902 | 2" | 3" | 4" | 4" |
| 992-2342 | 2-1/2" | 4" | 5" | 5" |

ACAD: 8033. DWG
HEATERS SHOWN REPRESENT VARIOUS MODELS. BECAUSE INDIVIDUAL MODELS WILL VARY IN DESIGN AND SIZING, SEE EACH SPECIFIC HEATER TYPE FOR DETAILS.

| | | | | | |
|--------|--|------------------|---------------------------------|--|---------------|
| 8400 | UNLESS OTHERWISE SPECIFIED: ALL UNITS ARE IN INCHES FRACTIONS ±1/32 ANGLES ±1° X. = ±.12 X.X = ±.06 X.XX = ±.03 X.XXX = ±.010 DRAFT WALL RADII CONCENTRICITIES .020 DIA. SQUARENESS .015 IN./IN. BREAK EDGES .015 MAX. SURFACE FINISH PER ASME Y14.36M-1996 | | APPROVED DATE 3/21/14 | OXNARD, CALIFORNIA | |
| | DRAWN E ALVARADO | | DATE 12-20-02 | E.O. SPR | SCALE NONE |
| | TITLE PIPING, UNI-TEMP 80: 4 HEATERS, 3 V TANKS | | SIZE B | THIS DRAWING SUBMITTED UNDER CONFIDENTIAL RELATIONSHIP, AS IT EMBODIES PROPRIETARY INFORMATION, WITH ALL RIGHTS RESERVED BY RAYPAK, INC. | |
| MAT'L. | SERIES/MODEL WH | DWG. NO. 8400 | REV 1 | | |