EASE EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING
www.equipmentanchorage.com

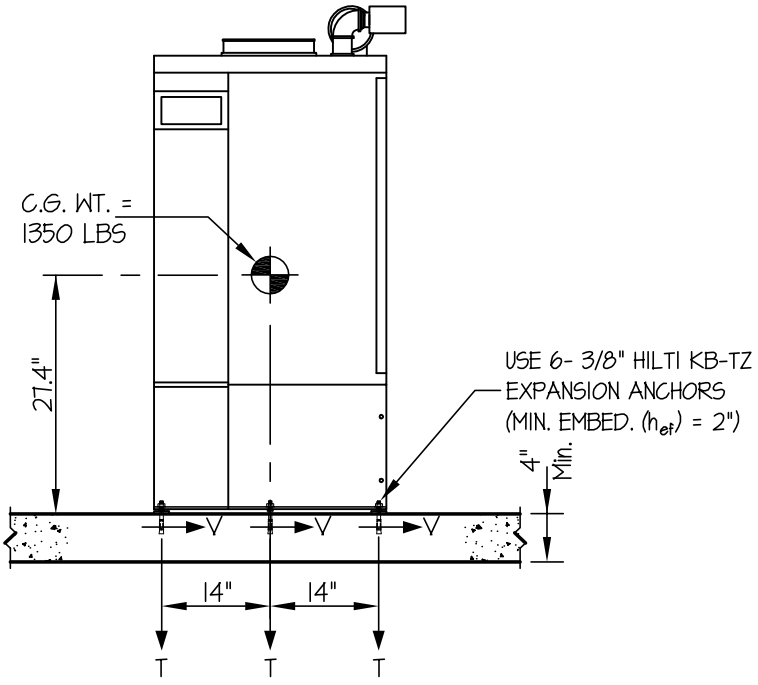
PATTERSON-KELLEY CO.

P-K MACH SERIES C-1500 BOILER

DES. J. ROBERSON
JOB NO. 11-1166
DATE 8/22/11
SHEET 1 OF 1 SHEET

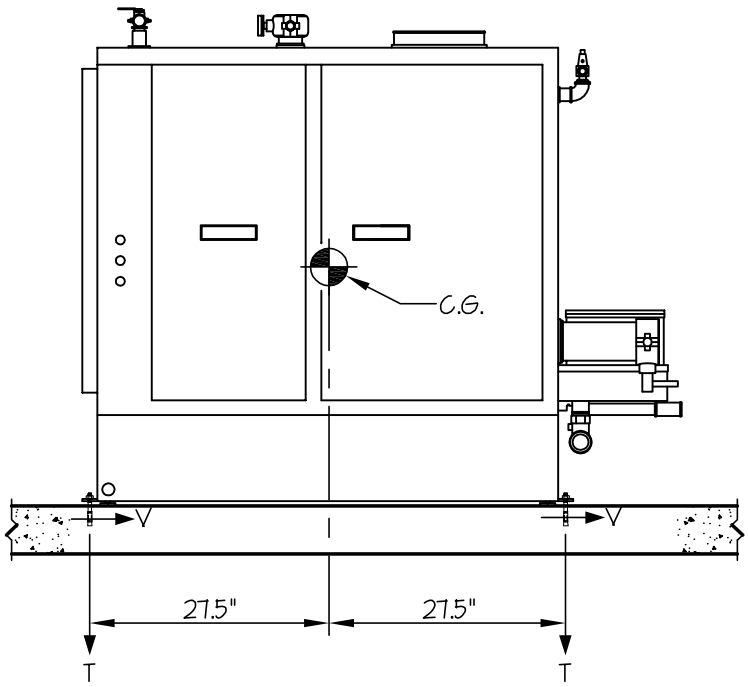
SEISMIC ANCHORAGE

SLAB ON GRADE



FRONT ELEVATION

T_{MAX} = 542 LBS/BOLT
V_{MAX} = 203 LBS/BOLT



SIDE ELEVATION

LOADS: PER 2010 CALIFORNIA BUILDING CODE SECTION 1613A AND ASCE 7-05 SECTIONS 12 AND 13.
WEIGHT = 1350 LBS
HORIZONTAL FORCE (E_h) = 0.90 W_p = 1215 LBS
VERTICAL FORCE (E_v) = 0.40 W_p = 540 LBS

BOLT FORCES:

TENSION (T) (ONLY 4 OUTER BOLTS CONSIDERED IN CALCULATIONS)

$$T_{MAXIMUM} = \left[\frac{1215\#(27.4'')}{3\ \text{BOLTS}\ (55'')} \times (0.3)\right] + \frac{1215\#(27.4'')}{2\ \text{BOLTS}\ (28'')} - \frac{(1350\#(0.9) - 540\#)}{6\ \text{BOLTS}} = 542\ \text{LBS/BOLT (MAX)}$$

(HORIZ. - SIDE TO SIDE) (HORIZ. - FRONT TO BACK) (WEIGHT (0.9) - E_v)

SHEAR (V)

$$V_{MAXIMUM} = \frac{1215\#}{6\ \text{BOLTS}} = 203\ \text{LBS/BOLT (MAX)}$$

NOTE:
ARCHITECT OR STRUCTURAL ENGINEER OF RECORD SHALL PROVIDE SUPPORT STRUCTURE TO SUPPORT WEIGHTS AND FORCES SHOWN.

REGISTERED PROFESSIONAL ENGINEER
JONATHAN ROBERSON
No. 4197
EXP. 6-30-2012
STRUCTURAL
STATE OF CALIFORNIA
8/22/11

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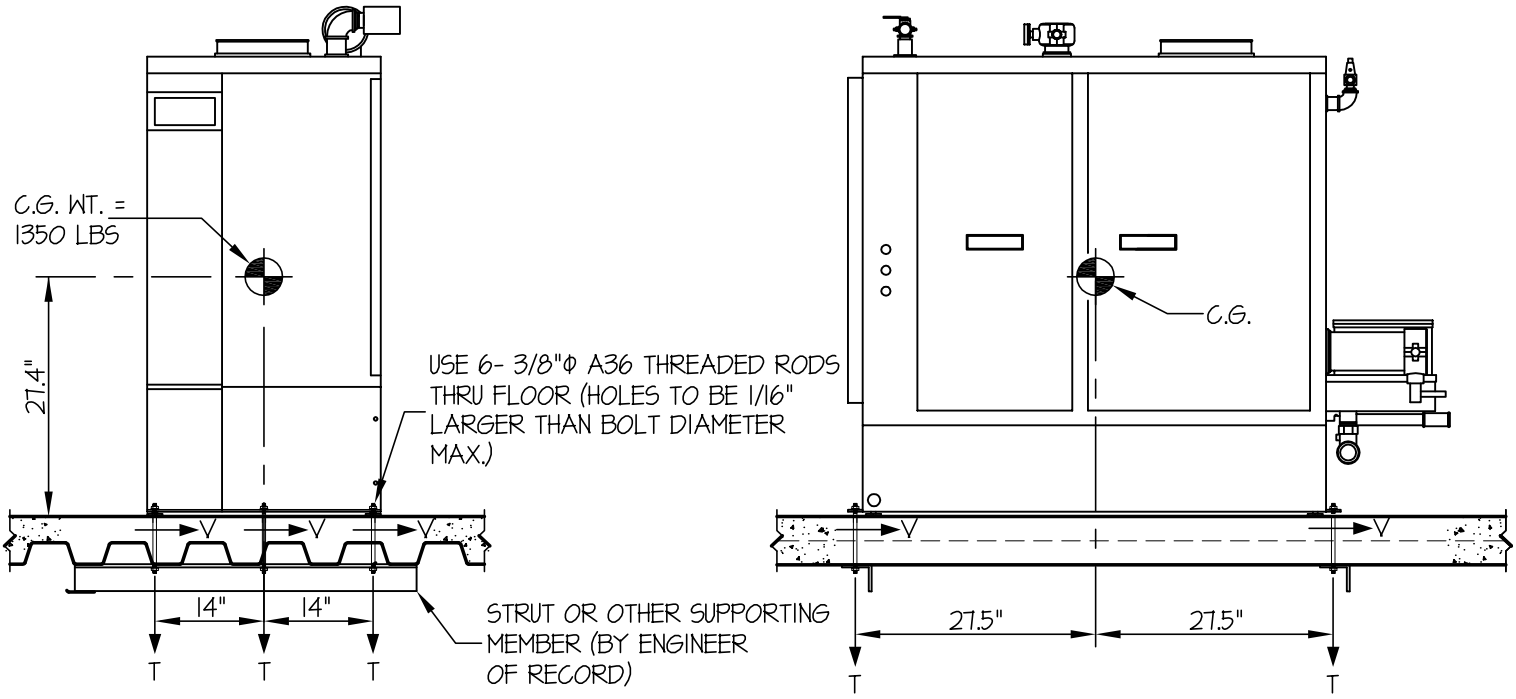
SEISMIC ANCHORAGE — ELEVATED FLOOR



FRONT ELEVATION

T_{MAX} = 935 LBS/BOLT
V_{MAX} = 324 LBS/BOLT

SIDE ELEVATION

LOADS: PER 2010 CALIFORNIA BUILDING CODE SECTION 1613A AND ASCE 7-05 SECTIONS 12 AND 13.
WEIGHT = 1350 LBS
HORIZONTAL FORCE (E_h) = 1.44 W_p = 1944 LBS
VERTICAL FORCE (E_v) = 0.40 W_p = 540 LBS

BOLT FORCES:

TENSION (T) (ONLY 4 OUTER BOLTS CONSIDERED IN CALCULATIONS)

$$T_{MAXIMUM} = \left[\frac{1944\#(27.4'')}{3\ \text{BOLTS}\ (55'')} \times (0.3)\right] + \frac{1944\#(27.4'')}{2\ \text{BOLTS}\ (28'')} - \frac{(1350\#(0.9) - 540\#)}{6\ \text{BOLTS}} = 935\ \text{LBS/BOLT (MAX)}$$

(HORIZ. - SIDE TO SIDE) (HORIZ. - FRONT TO BACK) (WEIGHT (0.9) - E_v)

SHEAR (V)

$$V_{MAXIMUM} = \frac{1944\#}{6\ \text{BOLTS}} = 324\ \text{LBS/BOLT (MAX)}$$

NOTE:
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