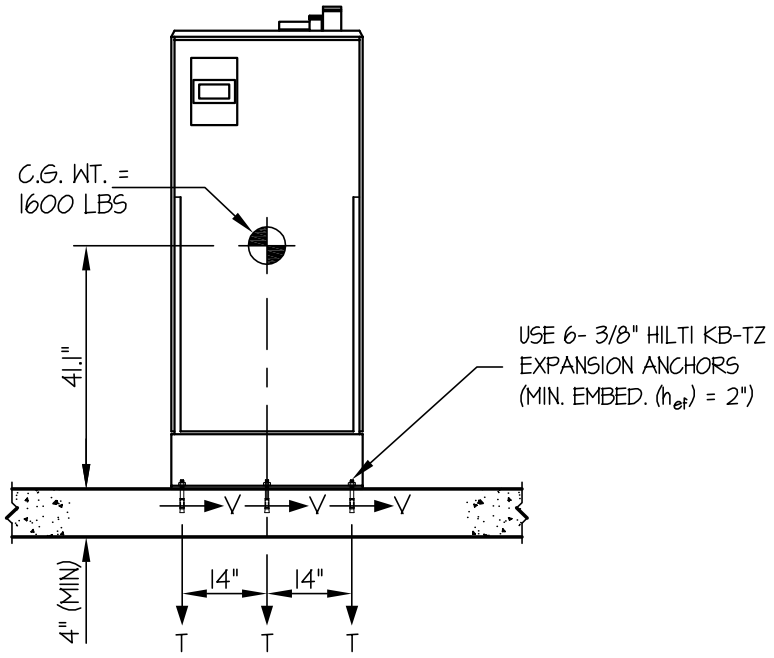
EASE EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING www.equipmentanchorage.com		
PATTERSON-KELLEY CO.	DES. J. ROBERSON	SHEET 1
P-K MACH SERIES C-3000 BOILER	JOB NO. 11-1166	
	DATE 8/22/11	OF 1 SHEET

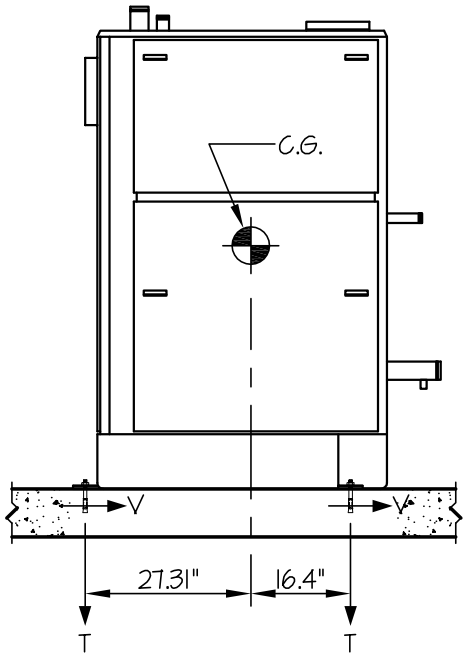
SEISMIC ANCHORAGE

SLAB ON GRADE



FRONT ELEVATION

T_{MAX} = 628 LBS/BOLT
V_{MAX} = 300 LBS/BOLT



SIDE ELEVATION

LOADS: PER 2010 CALIFORNIA BUILDING CODE SECTION 1613A AND ASCE 7-05 SECTIONS 12 AND 13.
WEIGHT = 1600 LBS
HORIZONTAL FORCE (E_h) = 0.90 W_p = 1440 LBS
VERTICAL FORCE (E_v) = 0.40 W_p = 640 LBS

BOLT FORCES:

TENSION (T)

$$T_{MAXIMUM} = \left[\frac{1440\#(41.1'')}{3\ BOLTS\ (43.7'')} \times (0.3)\right] + \frac{1440\#(41.1'')(27.31'')}{2\ BOLTS\ (28'')(43.71'')} - \frac{(1600\#(0.9) - 640\#)(27.3'')}{3\ BOLTS\ (43.7'')} = 628\ LBS/BOLT\ (MAX)$$

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

SHEAR (V)

$$V_{MAXIMUM} = \frac{1440\#(27.3'')}{3\ BOLTS\ (43.7'')} = 300\ LBS/BOLT\ (MAX)$$

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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P-K MACH SERIES C-3000 BOILER

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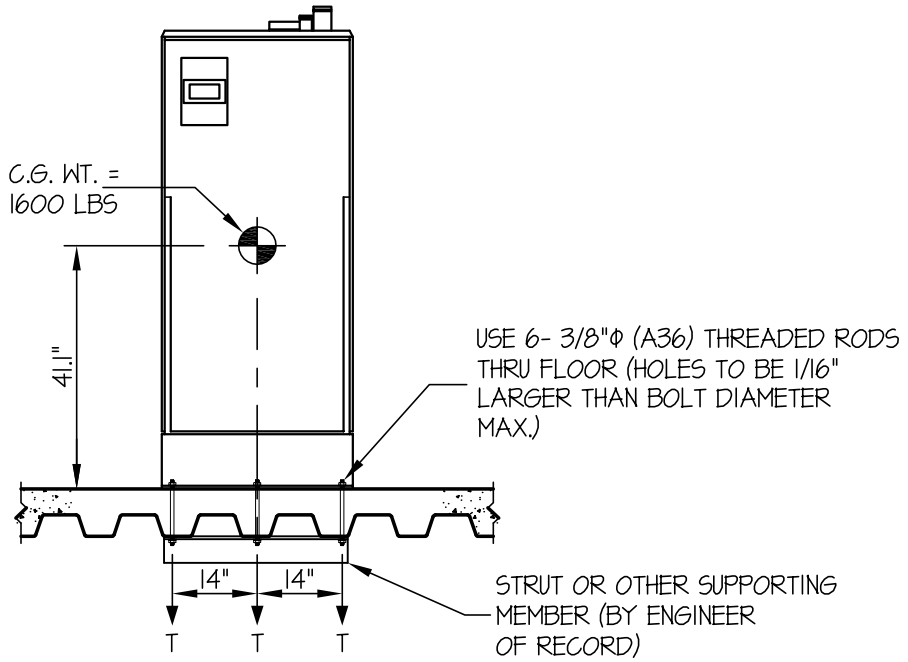
SHEET 1 OF 1 SHEET

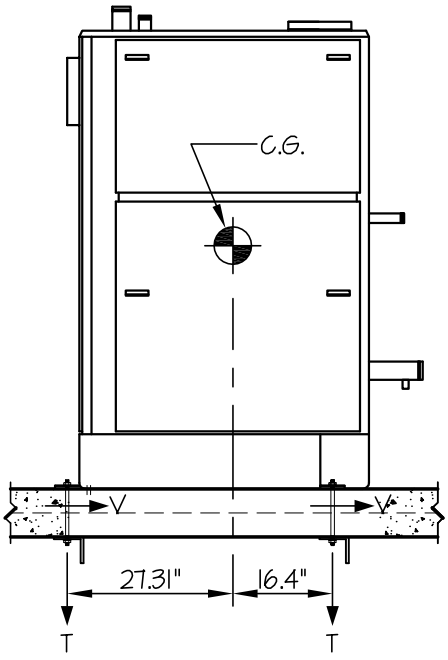
SEISMIC ANCHORAGE

ELEVATED FLOOR



FRONT ELEVATION

T_{MAX} = 1215 LBS/BOLT
V_{MAX} = 480 LBS/BOLT



SIDE ELEVATION

LOADS: PER 2010 CALIFORNIA BUILDING CODE SECTION 1613A AND ASCE 7-05 SECTIONS 12 AND 13.
WEIGHT = 1600 LBS
HORIZONTAL FORCE (E_h) = 1.44 W_p = 2304 LBS
VERTICAL FORCE (E_v) = 0.40 W_p = 640 LBS

BOLT FORCES:

TENSION (T)

$$T_{MAXIMUM} = \left[\frac{2304\#(41.1'')}{2\ \text{BOLTS}\ (43.7'')} \times (0.3)\right] + \frac{2304\#(41.1'')(27.31'')}{2\ \text{BOLTS}\ (28'')(43.71'')} - \frac{(1600\#(0.9) - 640\#)(27.3'')}{3\ \text{BOLTS}\ (43.7'')} = 1215\ \text{LBS/BOLT (MAX)}$$

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

SHEAR (V)

$$V_{MAXIMUM} = \frac{2304\#(27.3'')}{3\ \text{BOLTS}\ (43.7'')} = 480\ \text{LBS/BOLT (MAX)}$$

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

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