EASE

EQUIPMENT ANCHORAGE & SEISMIC ENGINEERING
www.EquipmentAnchorage.com

FOLLETT CORPORATION

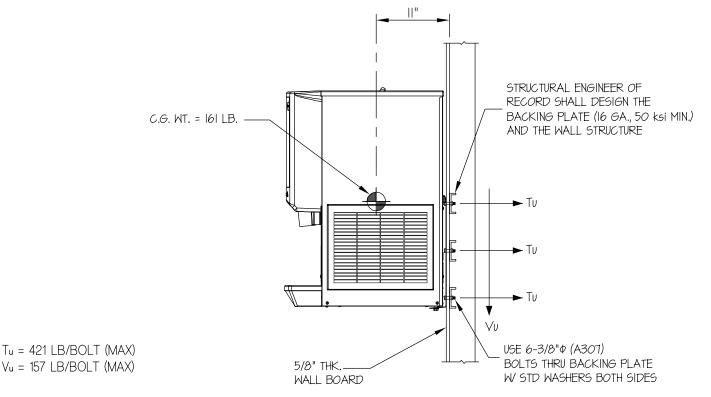## 12HI425A DISPENSER

DES.	J. ROBERSON	SHEET
JOB NO.	11-1420	1
DATE	5/9/14	OF 2 SHEETS

SEISMIC ANCHORAGE   **WALL MOUNTED**

11"

C.G. WT. = 161 LB.

STRUCTURAL ENGINEER OF RECORD SHALL DESIGN THE BACKING PLATE (16 GA., 50 ksi MIN.) AND THE WALL STRUCTURE

T_U

T_U

T_U

V_U

T_u = 421 LB/BOLT (MAX)
V_u = 157 LB/BOLT (MAX)

5/8" THK. WALL BOARD

USE 6-3/8"φ (A307) BOLTS THRU BACKING PLATE W/ STD WASHERS BOTH SIDES

S I D E   E L E V A T I O N

NOTES:

1. FORCES ARE DETERMINED PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10 STRENGTH DESIGN IS USED.

    HORIZONTAL FORCE (E_h) = 1.80 W_p (S_{DS} = 2.5, a_p = 1.0, I_p = 1.5, R_p = 2.5, z/h ≤ 1)
    VERTICAL FORCE (E_v) = 0.50 W_p

2. CENTER OF GRAVITY (C.G.) AND WEIGHT ARE THE GOVERNING PARAMETERS FOR DESIGN. THESE CALCULATIONS ENCOMPASS ALL WEIGHTS UP TO THE MAXIMUM WEIGHT SHOWN.

3. STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT WEIGHTS AND FORCES SHOWN IN COMBINATION WITH ALL OTHER LOADS THAT MAY BE PRESENT.

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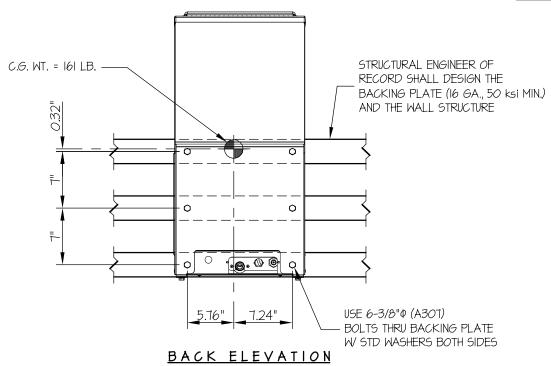**12HI425A DISPENSER**

DES.	J. ROBERSON	SHEET
JOB NO.	11-1420	**2**
DATE	5/9/14	OF **2** SHEETS

SEISMIC ANCHORAGE   WALL MOUNTED

C.G. WT. = 161 LB.

0.32"

7"

7"

STRUCTURAL ENGINEER OF RECORD SHALL DESIGN THE BACKING PLATE (16 GA., 50 ksi MIN.) AND THE WALL STRUCTURE

5.76"   7.24"

USE 6-3/8"φ (A307) BOLTS THRU BACKING PLATE W/ STD WASHERS BOTH SIDES

B A C K   E L E V A T I O N

LOADS: PER 2013 CALIFORNIA BUILDING CODE AND ASCE 7-10.
(STRENGTH DESIGN IS USED) (S_{DS} = 2.5, a_p = 1.0, I_p = 1.5, R_p = 2.5, z/h $\leq$ 1)
WEIGHT = 161 LB
HORIZONTAL FORCE (E_h) = 1.80 W_p = 290 LB
VERTICAL FORCE (E_v) = 0.50 W_p = 81 LB

BOLT FORCES:

BOLT SPEC: 3/8"φ (A307) BOLTS
ϕT = 3589 LB/BOLT
ϕV = 1914 LB/BOLT

TENSION (T)

$$T_{u\,VERTICAL} = \frac{(161\#(1.2) + 81\#)(11")(7.24")}{1_{BOLT}(14")(13")} = 120 \text{ LB/BOLT}$$

$$T_{u\,PARALLEL} = \frac{290\#(11")(14.32")}{1_{BOLT}(13")(14")} = 251 \text{ LB/BOLT}$$

$$T_{u\,PERP.} = \frac{290\#(14.32")(7.24")}{1_{BOLT}(14")(13")} = 166 \text{ LB/BOLT}$$

$$T_{u\,MAX} = 120\# + (0.3)(166\#) + 251\# = 421 \text{ LB/BOLT (MAX)}$$

SHEAR (V)

$$V_{u\,MAX} = \sqrt{\left(\frac{(161\#(1.2") + 81\#)(7.24")}{3_{BOLTS}(13")}\right)^2 + \left(\frac{290\#(14.32")}{2_{BOLTS}(14")}\right)^2} = 157 \text{ LB/BOLT (MAX)}$$