



PRODUCT TECHNOLOGY CORP.
250 INTERNATIONAL PARKWAY
SUITE 250
HEATHROW, FLORIDA 32746
PHONE 407 805-0365 FAX 407 805-0366

CLIENT: _____
PROJECT: _____
PROJECT NO: _____
REPORT NO: _____
PREPARED BY: _____
DATE: _____
SHEET NO: 1

SCOPE: PROVIDE SAMPLE ANCHOR CALCULATIONS FOR INSTALLATION OF WINDOWS IN ALUMINUM PORCH ENCLOSURE.

ANCHOR:

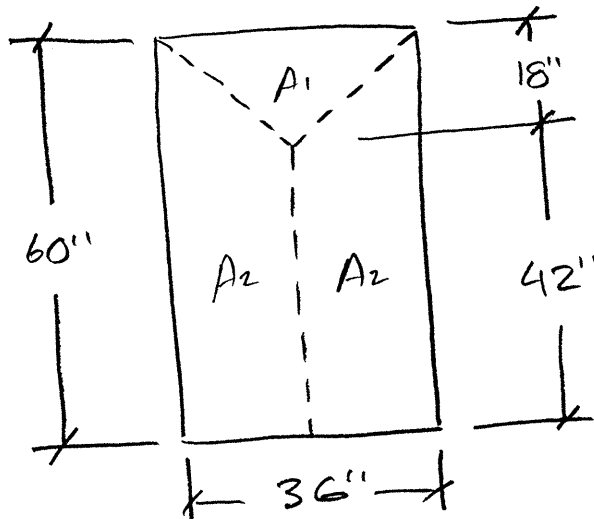
TYPE: #8 SELF TAPPING SMS

EVALUATE SCREW STRENGTH IN SHEAR:

$$R_n = 0.65 (0.75) (0.6) (58.0) (1.0) \left[\left(\frac{\pi}{4} \right) X (0.12^2) \right] = 0.192 \text{ K}$$

$$R_n = 0.192 (1000) = 191.9 \# / \text{SCREW}$$

LOAD DISTRIBUTION:



LOAD AREAS:

$$A_1 = 18.0^2 / 144 = 2.25 \text{ FT}^2$$

$$A_2 = A_1 + 18.0 (42.0) / 144 = 7.5 \text{ FT}^2$$

DESIGN PRESSURE: 40.0 PSF



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04-28-02



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SHEET NO: _____ (2)

TOTAL LOAD:

$$W1 = 2.25 (40.0) = 90.0 \#$$

$$W2 = 7.5 (40.0) = 300.0\#$$

ANCHOR QNT'Y. REQ'D:

$$@A1 = 90.0 / 191.9 = 0.47 \quad \text{USE ONE ANCHOR MIN.}$$

$$@A2 = 300.0 / 191.9 = 1.56 \quad \text{USE TWO ANCHORS MIN.}$$



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