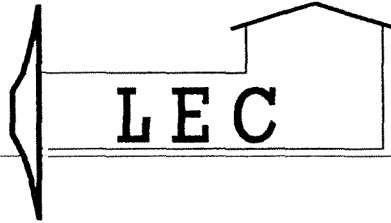
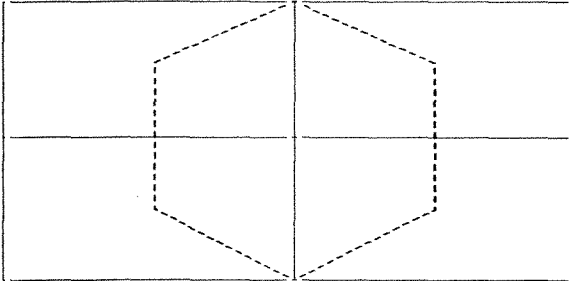


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FORMULA SHEET FOR MULLION LOAD CALCULATIONS



I = MOMENT OF INERTIA  
OF WINDOW AND MULL  
ASSEMBLY EXTRUSIONS  
C = CENTROID OF WINDOW  
AND MULL ASSEMBLY  
EXTRUSIONS

MAX DEFLECTION = SPAN/175

TRAPEZOIDAL LOAD PATTERN VERTICAL

CALCULATE MULLION MAXIMUM LOAD

$$W = \frac{I * 76.8 * \text{MAX DEFLECTION} * 10000000}{(\text{SPAN})^3}$$

CALCULATE MOMENT REQUIRED

$$M_{\text{req}} = \frac{(W * \text{SPAN})}{8000}$$

CALCULATE MOMENT DUE TO FIBER STRESS

$$M_f = 0.9 * (F_y) * (S) \quad \begin{matrix} F_y = 16.0 \text{ FOR ALUMINUM} \\ S = I / C \end{matrix}$$

COMPARE MOMENTS

M<sub>req</sub> MUST BE > M<sub>f</sub>, IF NOT THEN LOAD MUST BE REDUCED:

$$W = \frac{M_f * 8000}{\text{SPAN}}$$

CALCULATE MAX. LOAD IN PSF

$$\text{PSF} = \frac{W}{\text{LOAD AREA}} = 1.5 \text{ X DESIGN PRESSURE}$$

CALCULATE ALLOWABLE DESIGN PRESSURE

$$D. P. = \text{MAX. LOAD} * .6666667 \quad (\text{REDUCE BY } 1/3)$$

