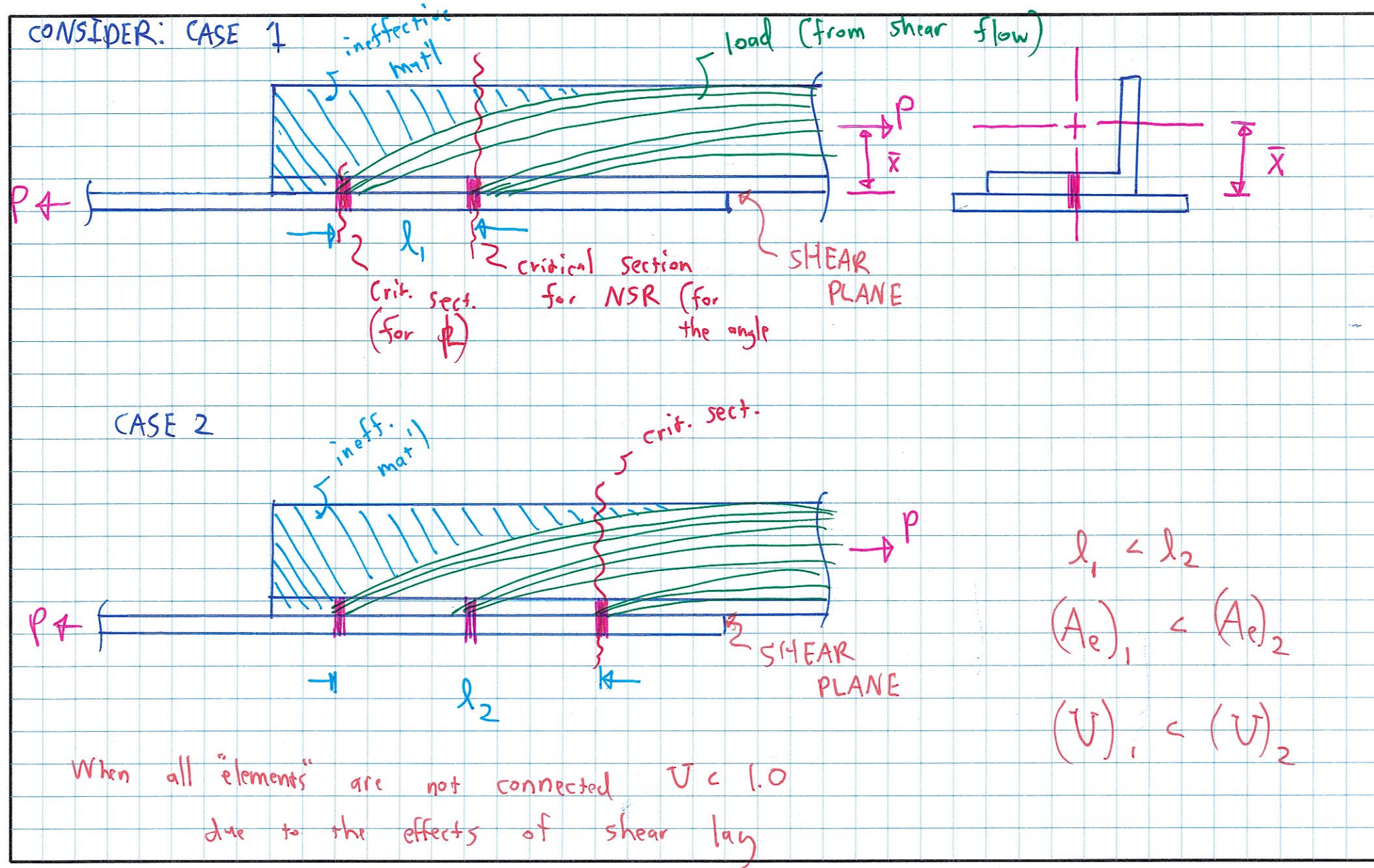
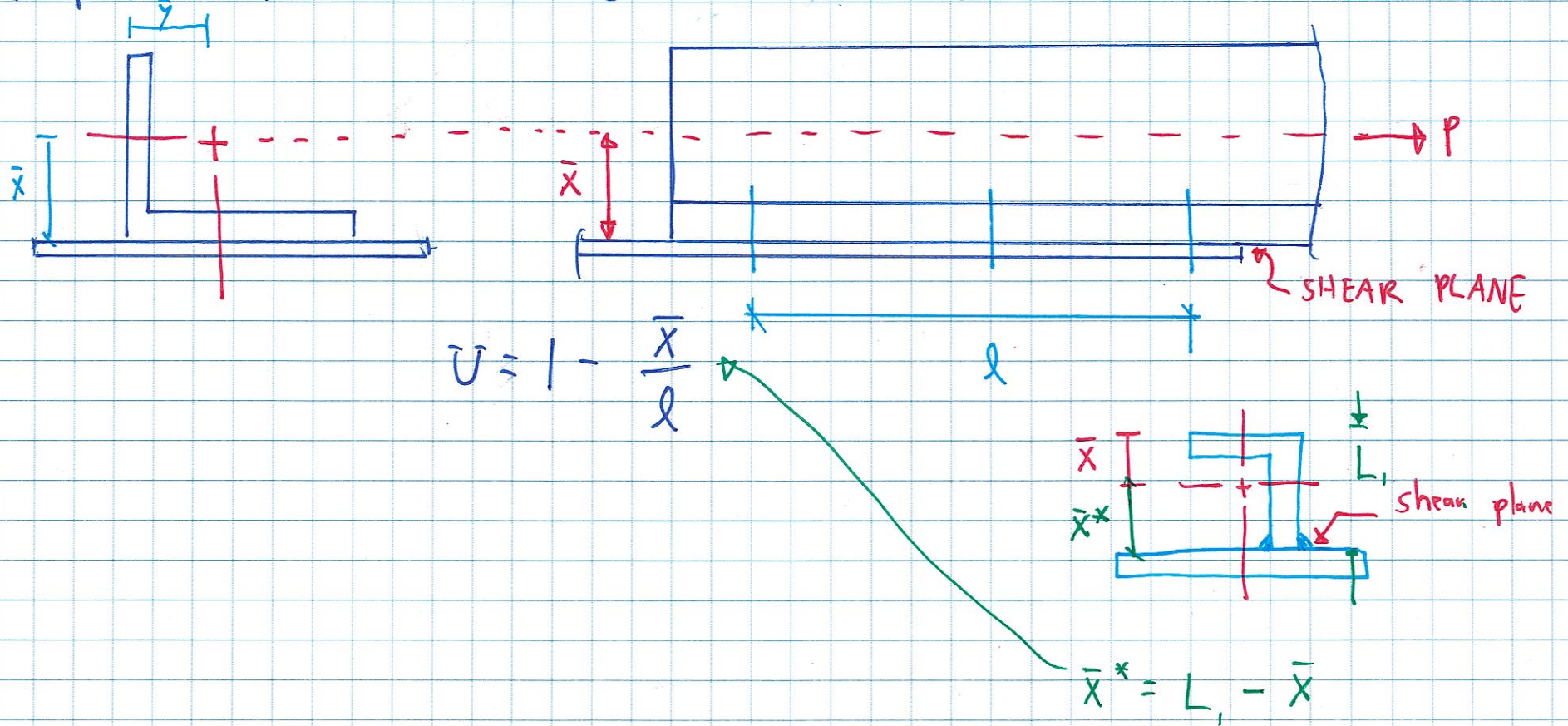
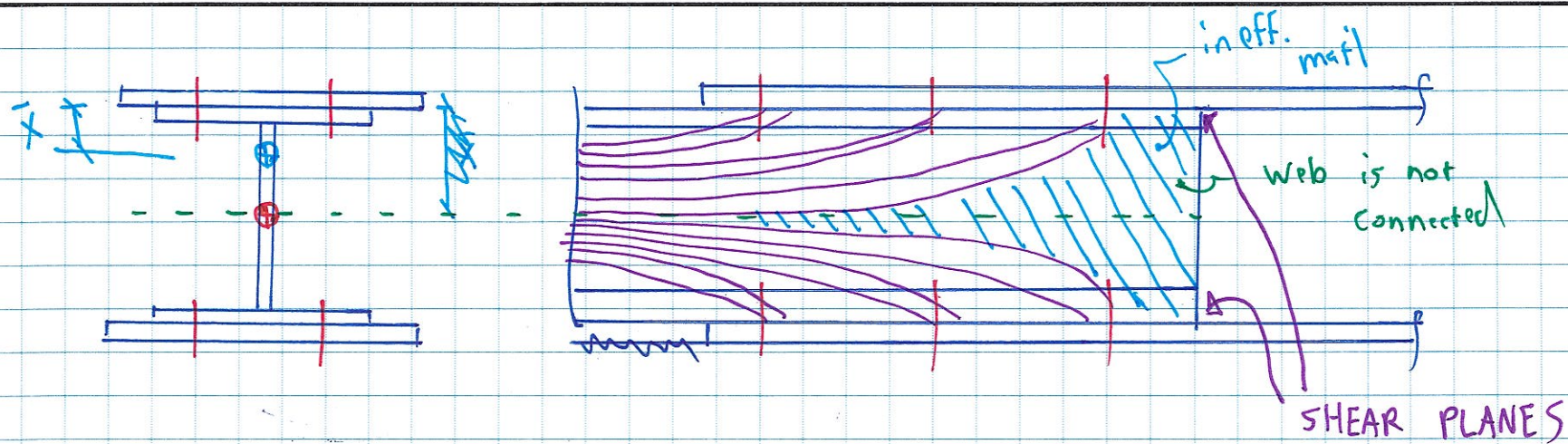




AISC p16.1-28 Table D3.1: CASE 2 "GENERAL CASE"





We use $\bar{x}$ for WT shapes for this case

W 8 X 86 $\rightarrow$ Half would be a

~~WT 9 X 43~~

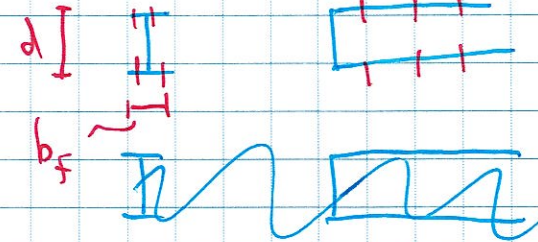
WT 9 X 43

CASE 7: W, M, S, HP, & WT SHAPES

a) For 3 or more fasteners per line ^{in the direction of loading} (Web not connected)

$$b_f \geq \frac{2}{3}d \rightarrow U = 0.9$$

$$b_f < \frac{2}{3}d \rightarrow U = 0.85$$



b) For 4 or more fasteners per line through the web (flanges not connected)

$$U = 0.70$$

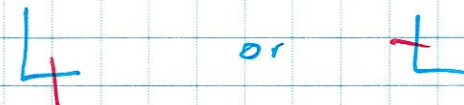


CASE 8: for ^L single angles, implies ∟, can use the larger value in case 2

$$U = 1 - \frac{\bar{x}}{L} \quad \text{or}$$

a) 4 or more fasteners per line $U = 0.80$

b) 2 or 3 fasteners per line: $U = 0.60$

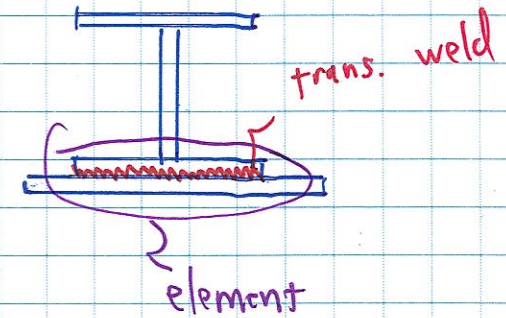
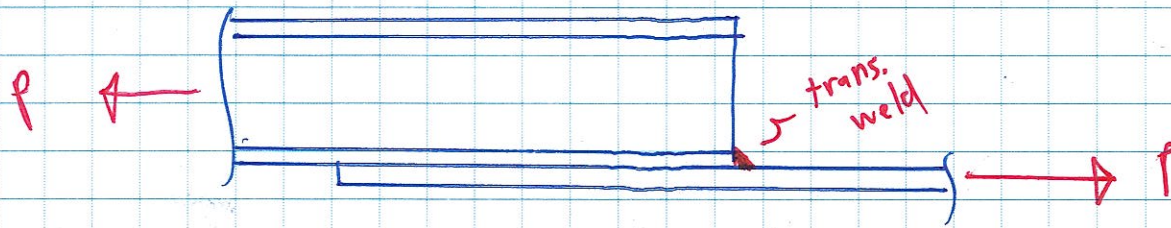


Single angles, JL, & WT SHAPES SHALL BE DESIGNED ST

$$\left. \begin{array}{l} U \geq 0.6 \\ U = 1 - \frac{\bar{x}}{l} \end{array} \right\} \frac{\bar{x}}{l} \leq 0.4$$

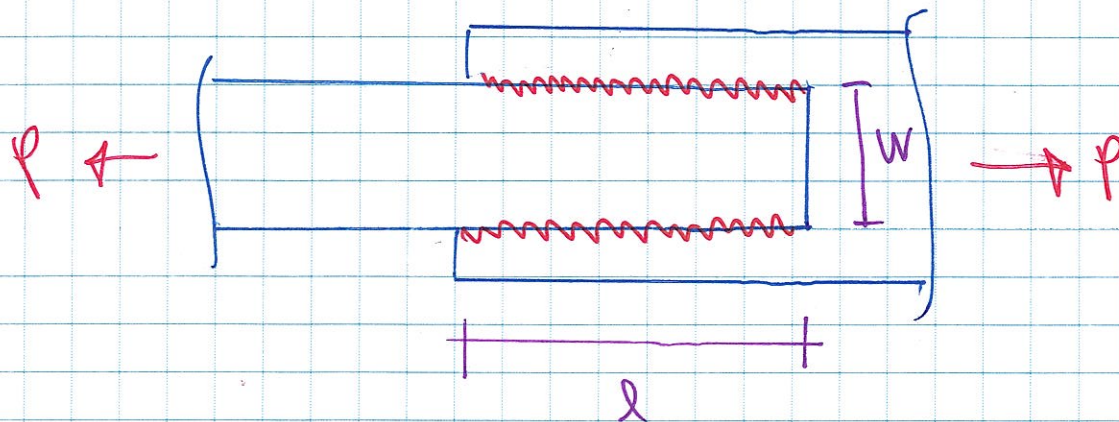
DON'T DESIGN A CONN. ST $\frac{\bar{x}}{l} > 0.4$

CASE 3: Trans. weld transmits load to some, but not all CSA elements



$$A_n = b_f t_f$$

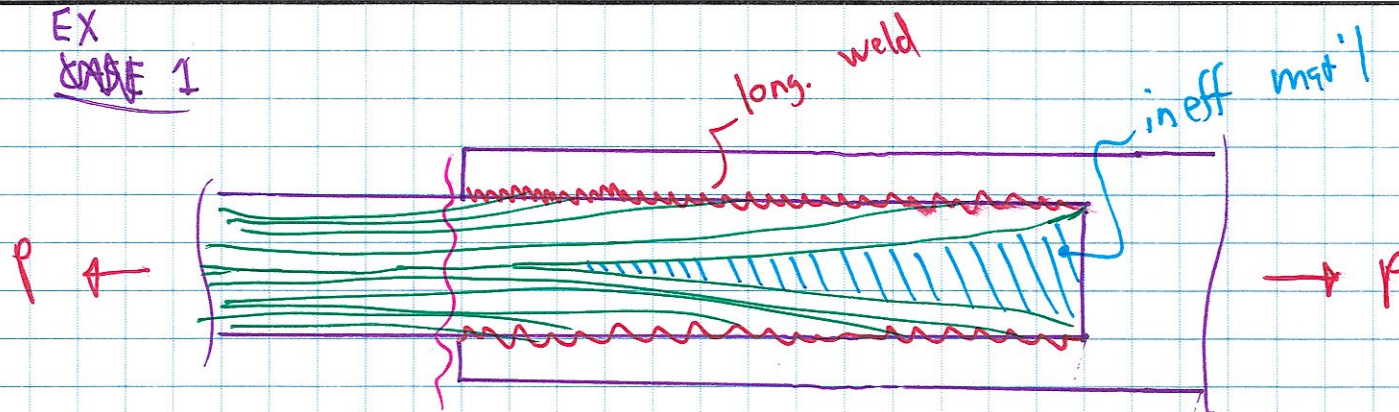
CASE 4: Flat p w/ long. welds only



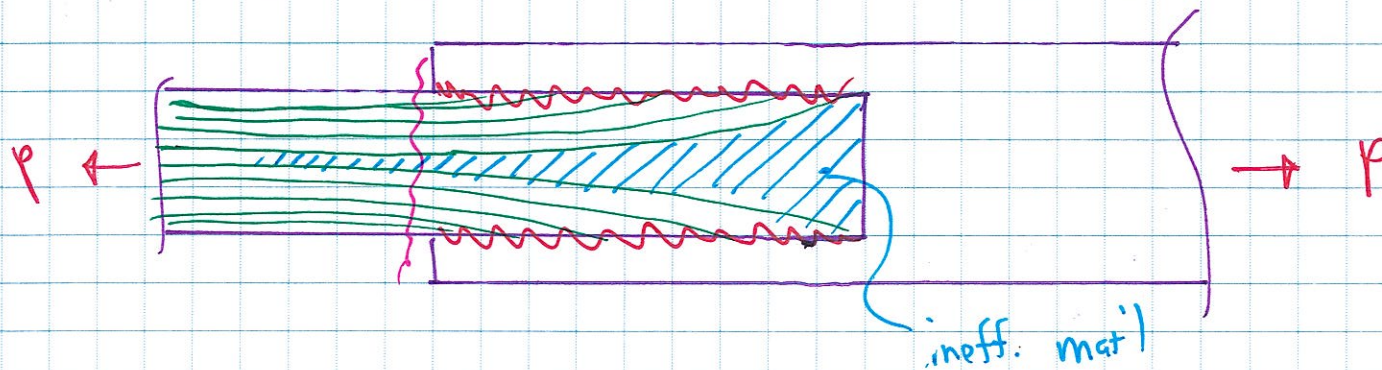
$$U = \frac{3l^2}{3l^2 + w^2} \left(1 - \frac{\bar{x}}{l}\right)$$

* l should never be less than w

EX
~~CASE~~ 1



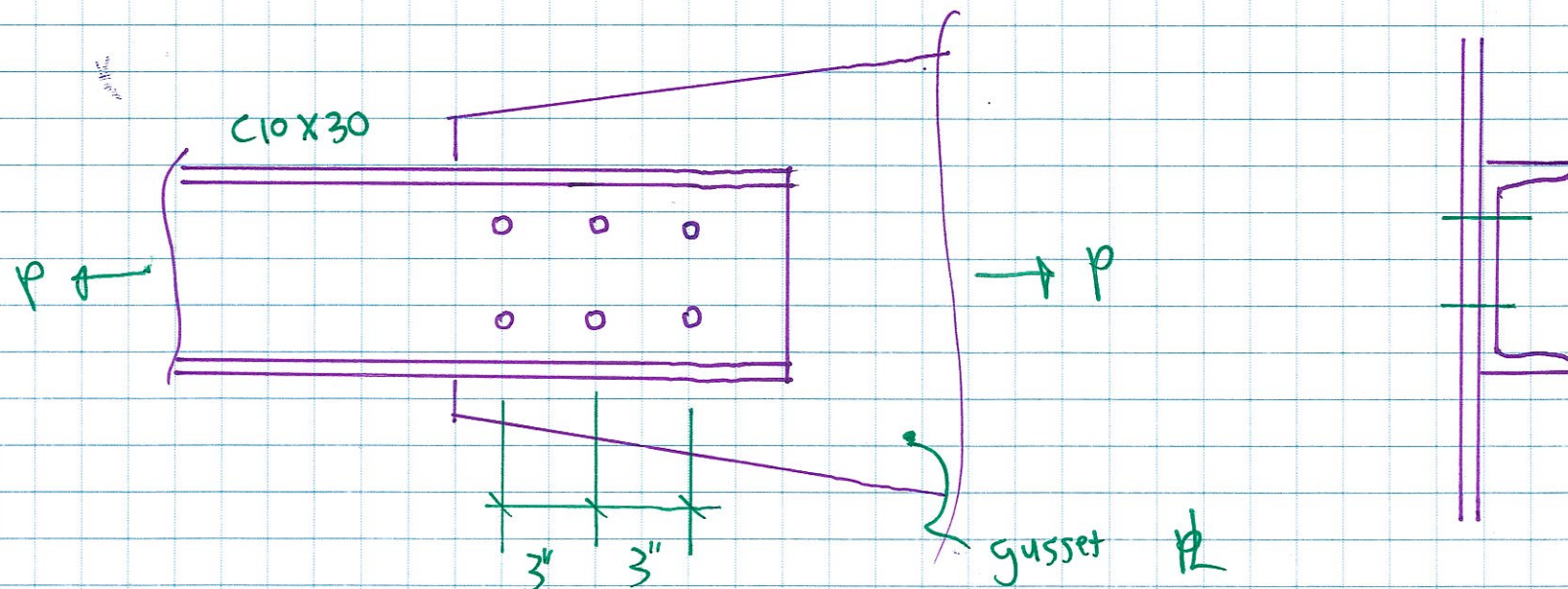
EX 2



$$U_{\text{case 2}} < U_{\text{case 1}}$$

EXAMPLE

GIVEN: A Channel Section, C10 X 30, is connected to a gusset PL w/ $\frac{7}{8}$ " ϕ bolts



REQ'D Compute A_n & A_e

MITEENS
BUTTERSCOTCH
MANGO
ROSCO
KEVIN