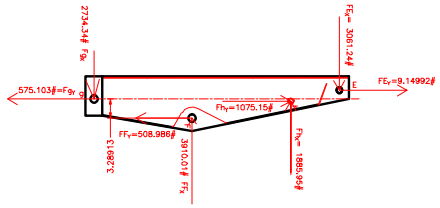
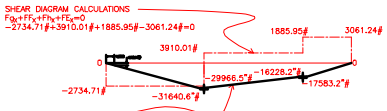


SHEAR DIAGRAM CALCULATIONS

$F_{0x}+FF_x+Fh_x+FE_x=0$

$-2734.71\#+3910.01\#+1885.95\#-3061.24\#=0$



MOMENT CALCULATIONS

$M_{11.5700}=-2734.71\#*11.5700"=-31640.6"\#$

$M_{11.5700}+=-2734.71\#*11.5700"+(508.986\#*3.28913")=-29966.5"\#$

$M_{23.2592}=-2734.71\#*23.2592"+(508.986\#*3.28913")+3910.01\#*11.6892"=-16228.2"\#$

$M_{23.2592}+=-2734.71\#*23.2592"+(508.986\#*3.28913")+3910.01\#*11.6892"-(1075.15\#*1.26030)=-17583.2"\#$

$M_{29.0000}=-2734.71\#*29.0000"+(508.986\#*3.28913")+3910.01\#*17.4300"-(1075.15\#*1.26030")+1885.95\#*5.74084"=-9.06892"\#$

DOMEX 100XF
TENSILE STRENGTH 1110000PSI
YIELD STRENGTH 100000PSI
YIELD STRENGTH WITH SAFTEY FACTOR 3 33333PSI

P=−575.103−508.986=−1084.09#
M=−3061.24"#

$\frac{P}{A}\pm\frac{MC}{I}=S_T$

$-\frac{1084.09\#}{1.50IN^2}\pm\frac{-3061.24"\#\ *0.94"}{1.11IN^4}=S_T$

723PSI + 2592PSI = 3315PSI

THE SHAPE SHOWN WILL WORK
WITH A WALL THICKNESS OF 3/16"

P=−575.103−508.986=−1084.09#
M=−31636.3"#

$\frac{P}{A}\pm\frac{MC}{I}=S_T$

$-\frac{1084.09\#}{2.93IN^2}\pm\frac{-31636.3"\#\ *2.73"}{12.63IN^4}=S_T$

370PSI + 6838PSI = 7208PSI

THE SHAPE SHOWN WILL WORK
WITH A WALL THICKNESS OF 3/16"

P=−575.103−508.986=−1084.09#
M=−2738.74"#

$\frac{P}{A}\pm\frac{MC}{I}=S_T$

$-\frac{1084.09\#}{2.25IN^2}\pm\frac{-2738.74"\#\ *1.859"}{5.14IN^4}=S_T$

484PSI + 991PSI = 6274PSI

THE SHAPE SHOWN WILL WORK
WITH A WALL THICKNESS OF 3/16"