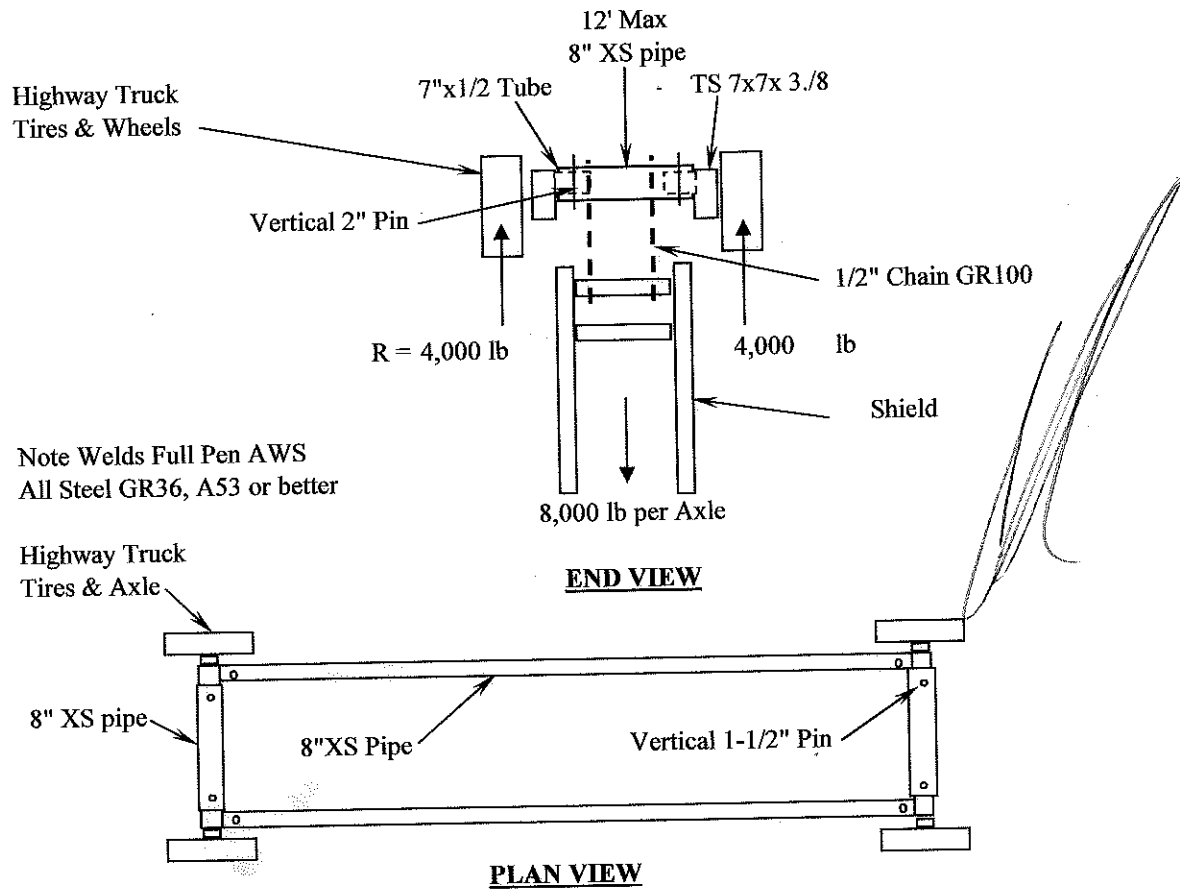


**TRENCH SHORE RENTAL**

**8 TON SHIELD CARRIER**  
**8,000 lb Max Load per Axle**

4/14/2010  
 by EGW Eniggeering, PC



**HIGHWAY TRUCK**  
 Truck Axle Carrying Capacity = 8,000 lbs

**FRAME**

8"XS Pipe	$S_x =$	24.60	cin	Tube Section Modulus
	$F_b =$	20,000	psi	Allowable Bending Stress
	$M_a = S_x F_b / 12$	41,000	ft-lb	Allowable Bending Moment
	$L_c = M_a / R_t$	10.25	ft	

**CONNECTING PIN**

1.5" Dia	$D_p =$	1.500	in	Pin Diameter
	$A_p = \pi D_p^2 / 4$	1.767	sqin	Pin Cross Section Area
	$F_v =$	10,000	psi	Allowable Shear Stress
	$R_p = F_v A_p$	17,671		Allowable Shear > $R_t$
	$L_c = R_p / 8 R_t$	2.96	ft	