

CBR=4



Title <u>ADVANCED CONST. MATLS</u>		Sheet No. <u> </u> of <u> </u>	
SITE <u>PAV TOTAL</u>		<u> </u> / <u> </u> / <u> </u>	
By <u>AK</u>	<u>2/13/00</u>	Chk. <u> </u> / <u> </u> / <u> </u>	Job No. <u>CET-3120</u>

SSOE, Inc. • 1001 Madison Avenue • Toledo, Ohio 43624 • Fax 419-255-6101 • 419-255-3830

- SCHOOL BUS YARD, FOR FUTURE BUS STORAGE
- 180 SCHOOL DAYS / YR. 2 TANKS / DAY 20 YRS.
- STD. BUS 12^K SINGLE & 9^K SINGLE 100 BUSES.
- 2 FUEL TANKERS / WEEK. SIMI'S.
- FIND TOTAL E-18'S. • FOR SN=3 $p_d=2.0$
- + BUS TOTAL E-18'S

$$\begin{aligned}
 4^K \text{ AXLE} &\rightarrow 0.002 \text{ E-18'S} \\
 12^K \text{ AXLE} &\rightarrow 0.189 \text{ E-18} \\
 &\hline
 &0.191 \text{ Total E-18 / Bus.}
 \end{aligned}$$

+ TANKER TOTAL E-18'S

ASSUME 2-34^K TANKERS & 12^K-SINGLE

$$\begin{aligned}
 2 \times 34^K \text{ TANKERS} &\rightarrow 2 \times 1.08 = 2.16 \text{ E-18'S} \\
 12^K \text{ SINGLE} &\rightarrow \quad \quad = 0.19 \text{ E-18'S} \\
 &\hline
 &2.35 \text{ E-18'S}
 \end{aligned}$$

TOTAL SITE 20-YR E-18'S

$$\begin{aligned}
 \text{Bus: } 0.191 \times 100 \times 2 \times 180 \times 20 &= 137,520 \\
 \text{TANKER: } 2.35 \times 2 \times \frac{180}{5} \times 20 &= 3384 \\
 &\hline
 &140,904 \text{ E-18'S}
 \end{aligned}$$

WITH CBR=4 - $M_R = 4 \times 1200 = 4800 \text{ psi}$

$p_d=2.0$ $\Delta \text{PSI} = 9.5 - 2 = 7.5$ $R=80\%$

$SN = 2.65$