

# THE WEST VIRGINIA DEPARTMENT OF HIGHWAYS

## STRUCTURES DIVISION

BY: *RAM*      DATE: *9-1-83*  
 CHECKED: *GD*      DATE: *10-4-83*  
 ORGANIZATION: *0198*      *10/1/81*

*BARS Input Data*  
*Weight Summary*

BRIDGE NO. *04-35 1/2 -3.09*  
 COUNTY *Braxton*  
 DISTRICT *One*

SHEET *8*  
OF *12*

This data is provided For Information Only. WVDOH will not take any responsibility for its accuracy. Contractor shall be responsible for developing its own weight of the truss.

*Truss*

$L_0L_1 \quad 2(19.48')(8.93 \#/\text{ft}) = 347.91$   
 $L_1L_2 \quad 2(19.46')(8.93 \#/\text{ft}) = 347.56$   
 $L_2L_3 \quad 2(19.46')(11.9 \#/\text{ft}) = 463.15$   
 $L_3L_4 \quad 2(19.46')(14.9 \#/\text{ft}) = 579.91$   
 $L_4L_{5/2} \quad 2(19.46')(17.0 \#/\text{ft})(\frac{1}{2}) = 330.82$   
 $U_1L_1 \quad 4(21.0')(4.1 \#/\text{ft}) = 344.40$   
 $U_1L_2 \quad 2(28.67')(7.65 \#/\text{ft}) = 438.65$   
 $U_2L_2 \quad 2(24.5')(13.75 \#/\text{ft}) = 673.75$   
 $U_2L_3 \quad 2(31.33')(5.31 \#/\text{ft}) = 332.72$   
 $U_3L_3 \quad 2(28.0')(13.75 \#/\text{ft}) = 770.00$   
 $U_3L_4 \quad 2(34.13')(5.05 \#/\text{ft}) = 344.71$   
 $L_3U_4 \quad (34.17')(3.40 \#/\text{ft}) = 116.18$   
 $U_4L_4 \quad 2(28.0')(13.75 \#/\text{ft}) = 770.00$   
 $U_4L_{5/2} \quad 2(34.08')(2.603 \#/\text{ft})/2 = 88.71$   
 $L_4U_{5/2} \quad 2(34.08')(2.603 \#/\text{ft})/2 = 88.71$   
 $L_0U_1 \quad 2(28.58')(15.3 \#/\text{ft}) = 874.55$   
 $\quad \quad \quad (28.58')(17.0 \#/\text{ft}) = 485.86$   
 $U_1U_2 \quad 2(19.83')(15.3 \#/\text{ft}) = 606.80$   
 $\quad \quad \quad (19.83')(17.0 \#/\text{ft}) = 337.11$   
 $U_2U_3 \quad 2(19.79')(15.3 \#/\text{ft}) = 605.57$   
 $\quad \quad \quad (19.83')(17.0 \#/\text{ft}) = 337.11$   
 $U_3U_4 \quad 2(19.5')(15.3 \#/\text{ft}) = 596.70$   
 $\quad \quad \quad (19.5')(17.0 \#/\text{ft}) = 331.50$   
 $U_4U_{5/2} \quad 2(19.46')(15.3 \#/\text{ft})(\frac{1}{2}) = 297.74$   
 $\quad \quad \quad (19.46')(17.0 \#/\text{ft})(\frac{1}{2}) = 165.41$   
 $\quad \quad \quad (1.3)(4)(10675.53)$   
 $\quad \quad \quad = 55513 \text{ lbs.}$

*Floor System*

*Curbs*  $2(0.5')(0.5')(175.13')(50 \#/\text{ft}^3) = 4378.25$   
 $\quad \quad \quad \frac{14.0'}{12.0'}(0.333')(175.13')(50 \#/\text{ft}^3) = 40822.80$   
 $\quad \quad \quad = 34990.97$   
*Stringers*  $(7)(29 \#/\text{ft})(175.13')(1.06) = 37684.47$   
*Diaphragms*  $(18)(10.5 \#/\text{ft})(10.56') = 1995.84$   
*Floor beams*  $(7)(42.9 \#/\text{ft})(1.05)(16.13) = 5086.03$   
 $\quad \quad \quad (7)(8.5 \#/\text{ft})(2)(1.05)(16.13) = 2015.44$   
 $\quad \quad \quad = 86151.00$   
 $\quad \quad \quad = 91983.08$

*Laterals & Bracing*

*Low. Lat.*  $4(25.27')(6.008 \#/\text{ft}) = 607.29$   
 $\quad \quad \quad 4(25.27')(4.172 \#/\text{ft}) = 421.71$   
 $\quad \quad \quad 8(25.27')(3.380 \#/\text{ft}) = 683.30$   
 $\quad \quad \quad 2(25.27')(2.670 \#/\text{ft}) = 134.94$   
*Up. Lat.*  $4(26.06')(4.172 \#/\text{ft}) = 434.89$   
 $\quad \quad \quad 10(26.06')(2.670 \#/\text{ft}) = 695.80$   
*Sway Brace*  $6(2)(15.71')(7.2 \#/\text{ft}) = 1357.34$   
 $\quad \quad \quad 6(2)(15.71')(9.4 \#/\text{ft}) = 1772.09$   
 $\quad \quad \quad 6(4)(9.71')(6.1 \#/\text{ft}) = 1421.54$   
*Portal*  $2(2)(15.96')(8.5 \#/\text{ft}) = 542.64$   
 $\quad \quad \quad 2(4)(5.23')(4.9 \#/\text{ft}) = 205.02$   
 $\quad \quad \quad 2(4)(11.0')(4.9 \#/\text{ft}) = 431.20$   
 $\quad \quad \quad 2(2)(7.67')(4.9 \#/\text{ft}) = 150.33$   
 $\quad \quad \quad = 8858.09 \text{ lbs}$

*Railing*  $= 4(2)(175.13')(4.5 \#/\text{ft}) = 6304.68 \text{ lbs}$

$\text{Total} = 55513 + 86151 + 8858 + 6305 = 156827 \text{ lbs.}$

$\text{Wgt. per foot of truss} = \frac{156827 \text{ lbs}}{2(175.13')} = \frac{447.74 \#/\text{ft}}{1} = 447.74 \#/\text{ft. say } 465 \#/\text{ft.}$