

Analysis Period = 20 Years

Location Example 1 Assumed SN or D = 9"

| Vehicle Types                             | Current Traffic (A) | Growth Factors (B) | Design Traffic (C) | E.S.A.L. Factor (D) | Design E.S.A.L. (E) |
|---|---------------------|--------------------|--------------------|---------------------|---------------------|
| Passenger Cars                            | 5.925               | 2%                 | 52,551,787         | .0008               |                     |
| Buses                                     | 35                  | 24.30              | 310,433            | .6806               |                     |
| Panel and Pickup Trucks                   | 1,135               | 24.30              | 10,066,882         | .0122               |                     |
| Other 2-Axle/4-Tire Trucks                | 3                   | 24.30              | 26,609             | .0052               |                     |
| 2-Axle/6-Tire Trucks <i>SU2</i>           | 372                 | 24.30              | 3,299,454          | .1890               |                     |
| 3 or More Axle Trucks <i>SU3</i>          | 34                  | 24.30              | 301,563            | .1303               |                     |
| All Single Unit Trucks                    |                     |                    |                    |                     |                     |
| 3 Axle Tractor Semi-Trailers <i>CS3</i>   | 19                  | 24.30              | 168,521            | .8646               |                     |
| 4 Axle Tractor Semi-Trailers <i>CS4</i>   | 49                  | 24.30              | 434,606            | .6560               |                     |
| 5 + Axle Tractor Semi-Trailers <i>CS5</i> | 1,880               | 24.30              | 16,674,660         | 2.3719              |                     |
| All Tractor Semi-Trailers                 |                     |                    |                    |                     |                     |
| 5 Axle Double Trailers <i>DS5</i>         | 103                 | 24.30              | 913,559            | 2.3187              |                     |
| 6 + Axle Double Trailers <i>DS6</i>       | 0                   | 24.30              |                    |                     |                     |
| All Double Trailer Combos.                |                     |                    |                    |                     |                     |
| 3 Axle Truck-Trailers                     | 208                 | 24.30              | 1,844,856          | .0152               |                     |
| 4 Axle Truck-Trailers                     | 305                 | 24.30              | 2,705,198          | .0152               |                     |
| 5 + Axle Truck-Trailers                   | 125                 | 24.30              | 1,108,688          | .5317               |                     |
| All Truck-Trailer Combos.                 |                     |                    |                    |                     |                     |
| All Vehicles                              | 10,193              |                    | 90,406,816         | Design E.S.A.L.     |                     |

Figure 2-6.11. Worksheet from AASHTO Design Guide for Calculating 18-kip ESAL.