

Calculation of Elev's along baseline w/slope = 1.1%

$$\text{Slope} = \frac{\Delta EL}{\text{Length}}$$

$$\Delta EL = (\text{slope})(\text{length})$$

STA 3+27 : $L = 517 - 327 = 190 \text{ LF}$

$$\Delta EL = (0.011)(190 \text{ LF}) = 2.09'$$

$$EL = 90.9 + 2.09 = 92.99 \approx 93.00' \text{ MSL}$$

STA 2+97 : $L = 517 - 297 = 220 \text{ LF}$

$$\Delta EL = (0.011)(220') = 2.42'$$

$$EL = 90.9 + 2.42 = 93.32' \text{ MSL}$$

STA 2+60 : $L = 517 - 260 = 257 \text{ LF}$

$$\Delta EL = (0.011)(257') = 2.83'$$

$$EL = 90.9 + 2.83 = 93.73' \text{ MSL}$$

STA 2+41 : $L = 517 - 241 = 276 \text{ LF}$

$$\Delta EL = (0.011)(276) = 3.04'$$

$$EL = 90.9 + 3.04 = 93.94' \text{ MSL}$$

Calculation of Elev's along baseline w/slope = 1.1% (continued)

STA 1+99 : $L = 517 - 199 = 318 \text{ ft}$

$$\Delta EL = (0.011)(318') = 3.50'$$

$$EL = 90.9 + 3.50 = 94.40' \text{ MSL}$$

STA 1+85 : $L = 517 - 185 = 332 \text{ ft}$

$$\Delta EL = (0.011)(332) = 3.65'$$

$$EL = 90.9 + 3.65 = 94.55' \text{ MSL}$$

STA 1+29 : $L = 517 - 129 = 388 \text{ ft}$

$$\Delta EL = (0.011)(388) = 4.27'$$

$$EL = 90.9 + 4.27 = 95.17' \text{ MSL}$$

STA 1+18 : $L = 517 - 118 = 399 \text{ ft}$

$$\Delta EL = (0.011)(399) = 4.39 \text{ ft}$$

$$EL = 90.9 + 4.39 = 95.29 \text{ ft MSL}$$