$$\begin{split} x_2 &= \frac{x_1}{\cos \psi_1 - (p_{x1}/p_{z1}) \sin \psi_1} \,, \\ p_{x2} &= p_{x1} \cos \psi_1 + p_{z1} \sin \psi_1 \,, \\ y_2 &= y_1 + \frac{p_{y1}}{p_{z1}} x_2 \sin \psi_1 \,, \\ z_2 &= z_1 - \frac{p_1}{p_{z1}} x_2 \sin \psi_1 \,, \end{split} \tag{94}$$
 where  $\psi_1 \equiv \text{ANGLE} \times \text{E1} + \text{AE1}$