Propagating Twiss parameters through a drift

There is a waist at the midpoint of the inflector (0.85m upstream from the inflector exit). At the waist, $\beta_x = 2.45$ and $\beta_y = 16.0$ and $\alpha_x = \alpha_y = 0$. In a field free region (and we are assuming there is zero field in the inflector,

$$\beta(s) = \beta_{min} + \frac{s^2}{\beta_{min}}$$

and

$$\alpha(s) = -\frac{1}{2}\frac{d\beta}{ds} = -\frac{s}{\beta_{min}}$$

The formula gives the values in the table for the β and α at the inflector exit.

TABLE 1. Twiss parameters at inflector exit

β_x at waist	β_y at waist	β_x at exit	β_y at exit	α_x at exit	α_y at exit
2.45	16.0	2.745	16.05	-0.347	-0.053