

Diamond AKI Federal #1

270Acre Drainage Area

Penalty Calculations

$$\begin{array}{rcl} \text{X Direction Difference} & \frac{\text{Orthodox X Distance} - \text{Unorthodox X Distance}}{\text{Orthodox X Distance}} & \frac{660' - 560'}{660'} = .15 \end{array}$$

$$\begin{array}{rcl} \text{Y Direction Difference} & \frac{\text{Orthodox Y Distance} - \text{Unorthodox Y Distance}}{\text{Orthodox Y Distance}} & \frac{660' - 360'}{660'} = .45 \end{array}$$

$$\begin{array}{rcl} \text{Excess Area Ratio} & \frac{* \text{Excess Area (Acres)}}{270 \text{ Acres}} & \frac{28}{270} = .10 \end{array}$$

$$\text{Arithmetic Average} = \underline{.23}$$

* Note excess area determined from planimetering the difference of the two areas represented by the stippled region on drawing