A **compatible virtual displacement** of a member $AB$ is an imaginary displacement resulting from a *first-order* differential angular displacement $\delta \theta$ of the member about a certain point $D$, called its **displacement center**, during which the member deflects from position $AB$ to another position $A'B'$ and the following conditions exist

$$
\overline{AA'} \perp \overline{AD} \quad \overline{BB'} \perp \overline{BD} \quad \overline{A'B'} \geq \overline{AB}
$$

With member $AB$ undergoing a virtual angular displacement of $\delta \theta$, the value of $\overline{A'B'} - \overline{AB}$ can be shown to be, at most, of the second order of $\delta \theta$. A compatible virtual displacement is compatible with the virtual work method.