1. The arrow $\boldsymbol{d : Y \nrightarrow \overline{F}Y}$ satisfies $\boldsymbol{J!_{\overline{F}Y} \odot d = J!_Y}$.

2. Precomposing $\boldsymbol{d : Y \nrightarrow \overline{F}Y}$ preserves the greatest fixed point of a decreasing sequence in $\boldsymbol{\mathcal{K}\ell(T)(\overline{F}Y, A)}$. Namely, for a decreasing sequence $\boldsymbol{g_0 \sqsupseteq g_1 \sqsupseteq g_2 \ldots : \overline{F}Y \nrightarrow A}$ of Kleisli arrows, $\boldsymbol{\bigsqcap_{i\in\omega}(g_i \odot b) = (\bigsqcap_{i\in\omega} g_i) \odot b}$ holds.

3. Precomposing $\boldsymbol{d : Y \nrightarrow \overline{F}Y}$ preserves the largest mediating arrow. Namely, if $\boldsymbol{l_{\mathbf{max}} : \overline{F}Y \nrightarrow Z}$ is the largest mediating arrow from a cone $\boldsymbol{(\overline{F}Y, (\delta_i : \overline{F}Y \nrightarrow \overline{F}^i 1))}$ to a weak 2-limit $\boldsymbol{(Z, (J\pi_i : Z \nrightarrow \overline{F}^i 1))}$, then $\boldsymbol{l_{\mathbf{max}} \odot d : Y \nrightarrow Z}$ is the largest mediating arrow from a cone $\boldsymbol{(X, (\delta_i \odot b : X \nrightarrow \overline{F}^i 1))}$ to the weak 2-limit.