

$$\begin{array}{ccc}
 \Delta_{\{i,i+1,k\}}^G & \xrightarrow{\eta_{\{i,i+1,k\}}} & E_i \setminus G \\
 \downarrow \varphi(\{i,i+1,k\}, \{i+1,k\}) & & \downarrow \nu \\
 \Delta_{\{i+1,k\}}^G & \xrightarrow{\eta_{\{i+1,k\}}} & E_{i+1} \setminus G
 \end{array}$$