

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