$$\mathcal{W} = \begin{bmatrix} w_{11k} & w_{12k} & \dots & w_{1jk} \\ w_{21k} & w_{22k} & \dots & w_{2jk} \\ \vdots & \vdots & \ddots & \vdots \\ w_{112} & w_{122} & \dots & w_{1j2} \\ w_{111} & w_{121} & \dots & w_{1j1} \\ w_{211} & w_{221} & \dots & w_{2j1} \\ \vdots & \vdots & \ddots & \vdots \\ w_{i11} & w_{i21} & \dots & w_{ij1} \end{bmatrix}^{V_{2j2}}$$