$$A = \min_{a,d,g} \left(B\left[a, d | d, g\right] \right)$$

$$B'\left[a, d | d', g\right] = \min \begin{cases} B'[a, d-1 | d', g], & \text{if } d-1, \notin \{a, d', g\} \\ B[a+1, d-1 | d', g] + \Delta G(a, d) & \text{if } \{a+1, d-1\} \cap \{d', g\} = \emptyset \end{cases}$$

$$B\left[a, d | d', g\right] = \min \begin{cases} B[a+1, d | d', g], & \text{if } a+1 \notin \{d, d', g\} \\ B'[a, d-1 | d', g], & \text{if } d-1, \notin \{a, d', g\} \\ B[a+1, d-1 | d', g] + \Delta G(a, d) & \text{if } \{a+1, d-1\} \cap \{d', g\} = \emptyset, \\ C'[d', g | a, d] \end{cases}$$

$$C'\left[d, g | b, c\right] = \min \begin{cases} C'[d, g-1 | b, c], & \text{if } g-1, \notin \{d, b, c\} \\ C[d+1, g-1 | b, c] + \Delta G(d, g) & \text{if } \{d+1, g-1\} \cap \{b, c\} = \emptyset \end{cases}$$

$$C\left[d, g | b, c\right] = \min \begin{cases} C[d+1, g | b, c], & \text{if } d+1 \notin \{g, b, c\} \\ C'[d, g-1 | b, c], & \text{if } g-1, \notin \{d, b, c\} \\ C[d+1, g-1 | b, c] + \Delta G(d, g) & \text{if } \{d+1, g-1\} \cap \{b, c\} = \emptyset, \\ C'_{\boxtimes}[b, c-1, d, g+1-1] \end{cases}$$