A magic square of squares is defined as

$$\begin{bmatrix} a^2 & b^2 & c^2 \\ d^2 & e^2 & f^2 \\ g^2 & h^2 & i^2 \end{bmatrix}$$

Using the structure of repeating values in a Parker Square, we can define a parker square as

$$\begin{bmatrix} a^2 & b^2 & c^2 \\ d^2 & e^2 & f^2 \\ g^2 & h^2 & i^2 \end{bmatrix} = \begin{bmatrix} a^2 & b^2 & c^2 \\ d^2 & e^2 & b^2 \\ g^2 & d^2 & a^2 \end{bmatrix}$$

Using the magic properties of the rows and negative diagonals, we can say that:

$$a^2 + b^2 + c^2 = a^2 + e^2 + a^2$$

$$b^2 + c^2 = a^2 + e^2$$

$$c^2 = a^2 - b^2 + e^2$$

Using the magic properties of rows again, we can say that

$$a^2 + b^2 + c^2 = b^2 + e^2 + d^2$$

$$a^2 + b^2 + (a^2 - b^2 + e^2) = b^2 + e^2 + d^2$$

$$2a^2 + e^2 = b^2 + e^2 + d^2$$

$$2a^2 - b^2 - d^2 = 0$$

From this system of equations, I'm assuming that if a, b, and d satisfy $2a^2 - b^2 - d^2 = 0$, we can possibly generate a semi-magic square similar to a Parker square