Main constraints:

- Directions should alternate on neighboring roads. Left should follow right and vice-versa. Up should follow down and vice-versa.
- Motion should happen on left when on highways.
- No right turns are allowed when on highways.
- There can only be one pickup area per block.
- There can only be one charging station and queue per block.
- The map should be symmetrical horizontally.

Input Variables:

- r total number of rows in the center grid
- c total number of columns in the center grid
- m rows in a block of bins
- n columns in a block of bins
- u rows in the pickup area
- v columns in the pickup area
- p rows in the charging area
- q columns in the charging area

Constraints on the input variables:

- $m = 4k + 1$, for $k >= 1$
- $n = 4k + 1$, for $k >= 1$
- $r = (m + 2)k + 2$, for $k >= 1$
- $c = (n + 2)k + 2$, for $k >= 1$
- $v = 4k + 3$, for $k >= 1$
- $v <= n – 2$
- $w >= 0$
- $q = 3$