

strategy game

- players can design
and manage

transportation network
for a growing
city using
roads, highways,
bridge,

to connect
houses, factories

- No keyboard input

- Just drawing the
roads using their cursor.

left click

right click

- drag to
build roads

- drag over
roads to remove
them

On Startup:

exit

Road Realm

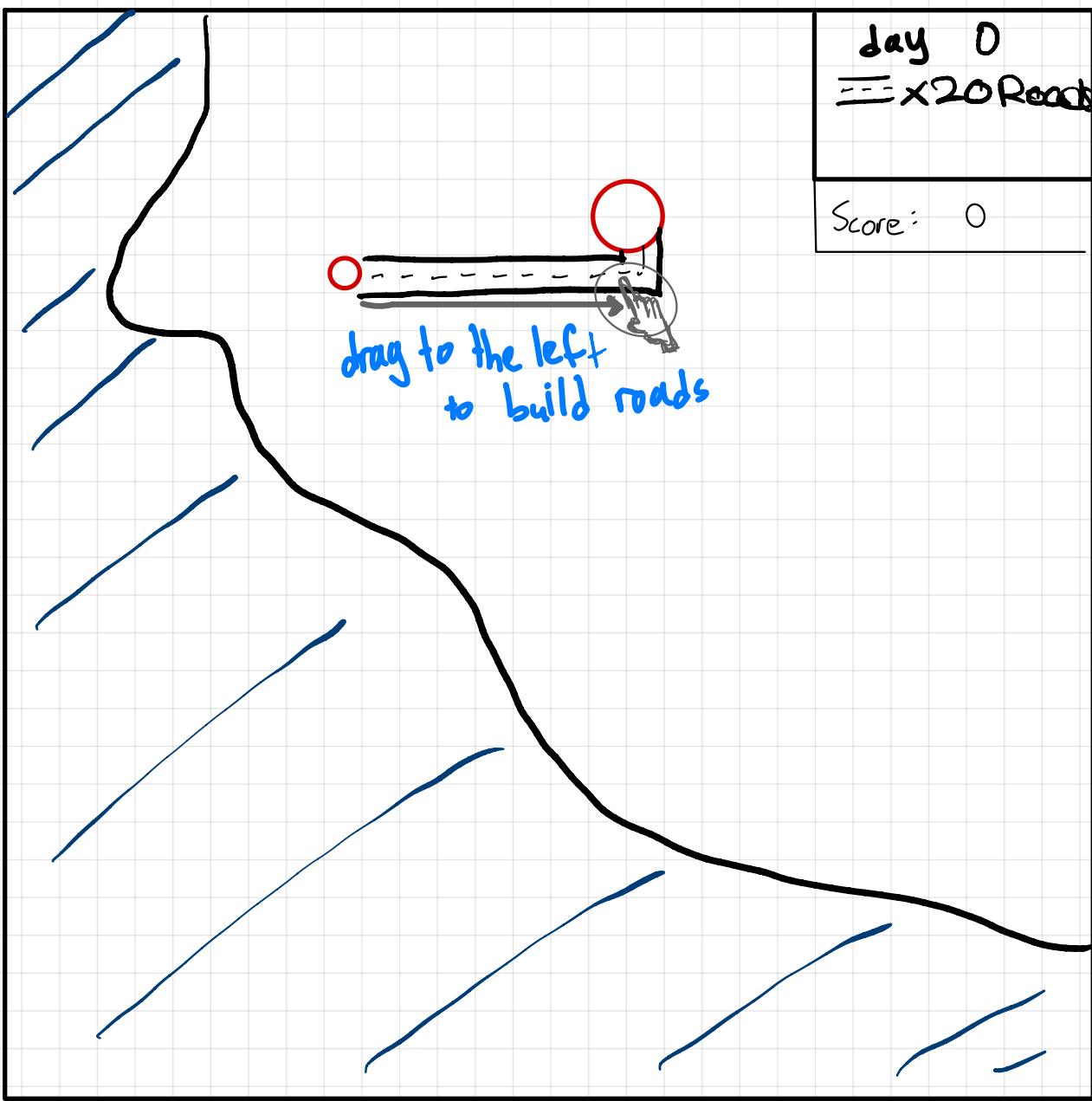
(Your Best Score: 9999)

Start

Exit

frame # 1

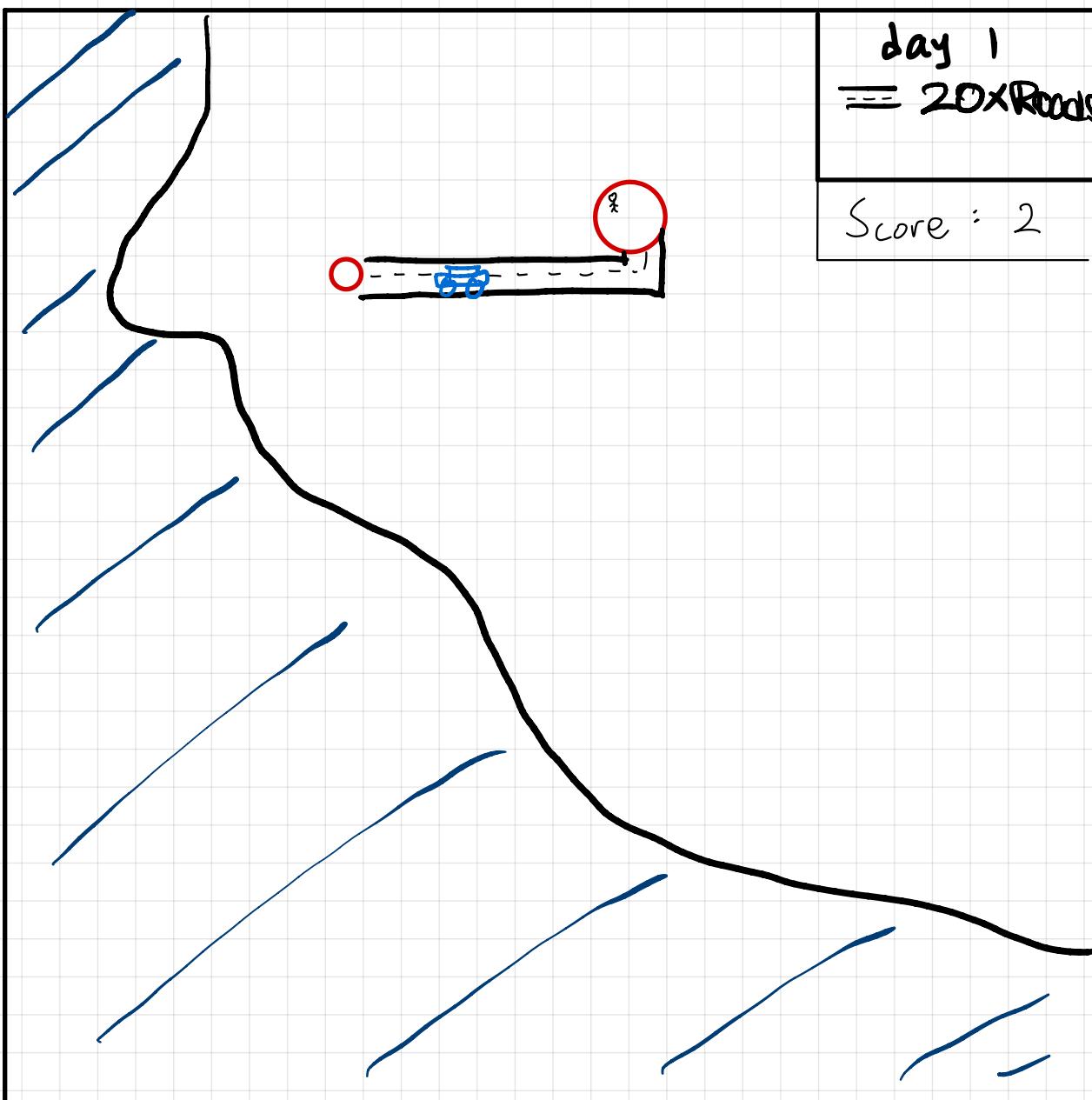
Sample Gameplay Story board : Early Game



Detail:

- The game starts with a small portion of the full map
- One randomly generated house and market will be generated
- The player will need to create a path between the two places by using roads

Sample Gameplay Story board: Early Game

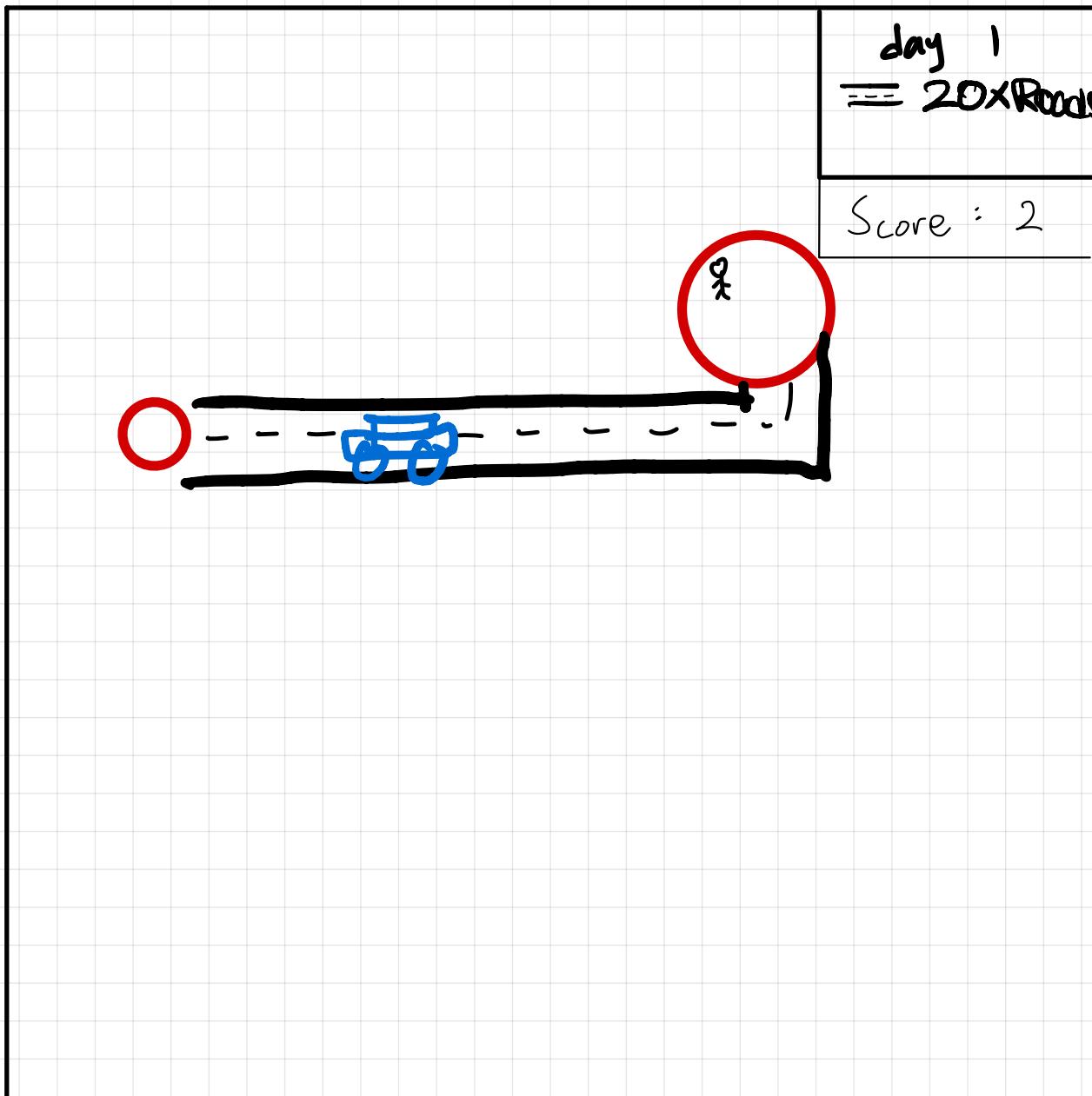


Detail:

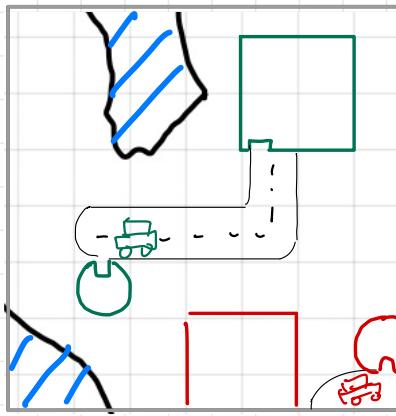
frame #3

- Once a path has been created, traffic can begin and a moving car will be rendered from the house to the market and vice versa.
- Players are incentivized to create a short path due to the limited amount of roads they can build.
- If the player manages to survive through the week, they will be rewarded with more roads.

Scene of user zoom in/out using mouse wheel



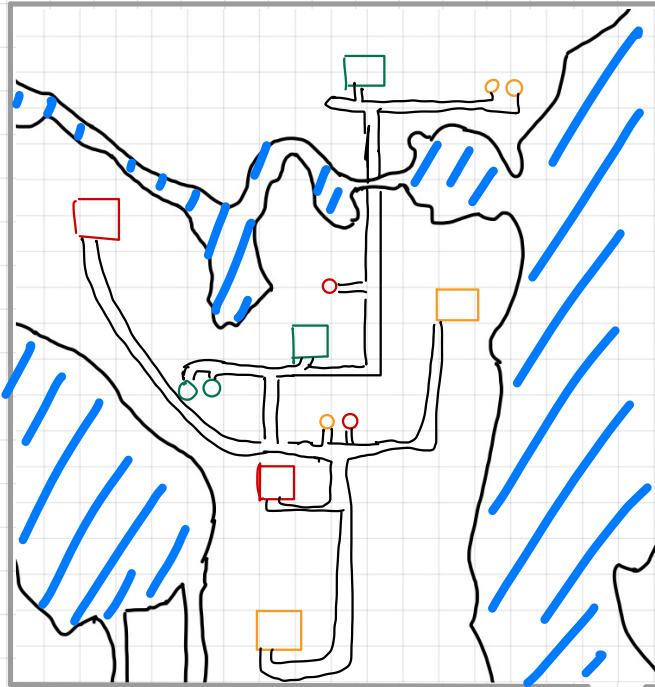
frame #4



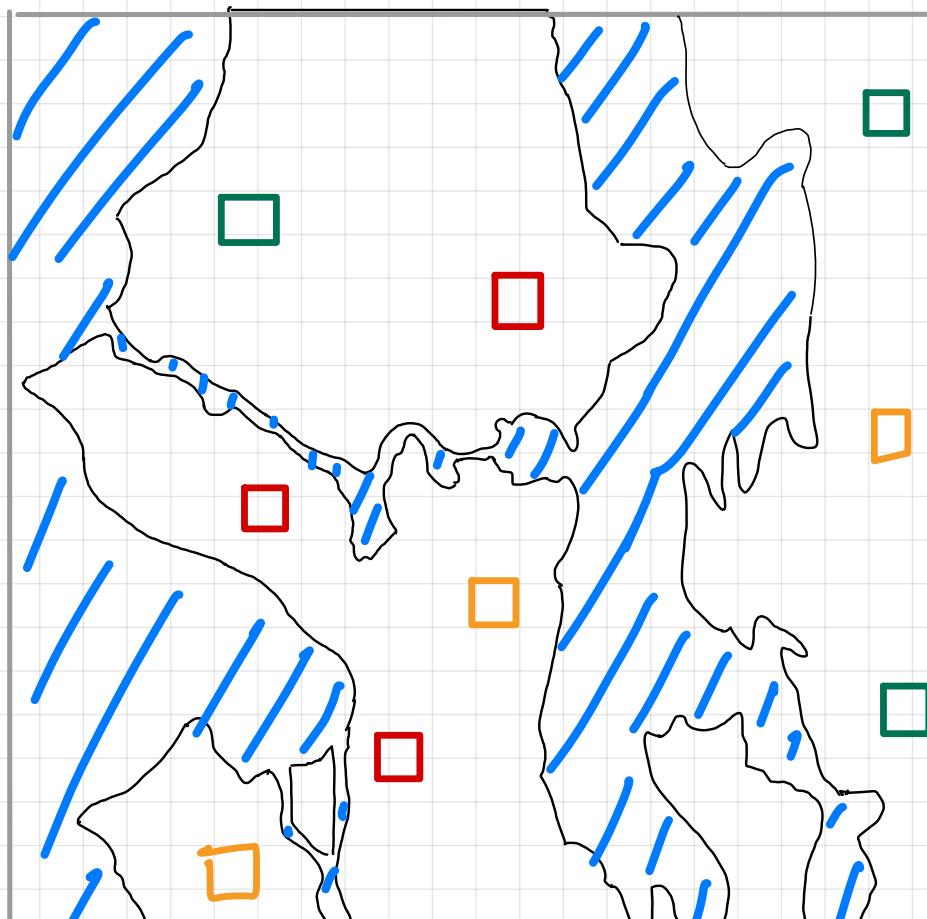
car

time
↓

map keeps on
Expanding as
time progresses



houses and markets keep spawning at some random location



- player can remove the roads they placed before and redesign their road network again,
- However, all spawned buildings cannot be removed.

grid-based design
- easy for users to place and connect houses and factories / markets

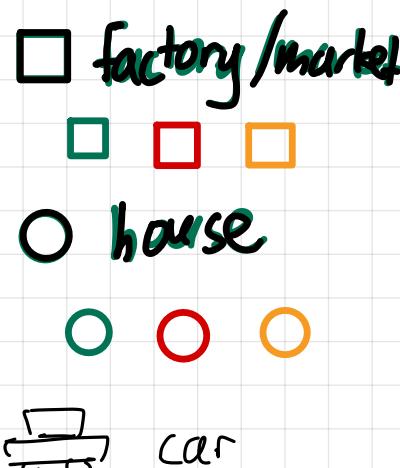
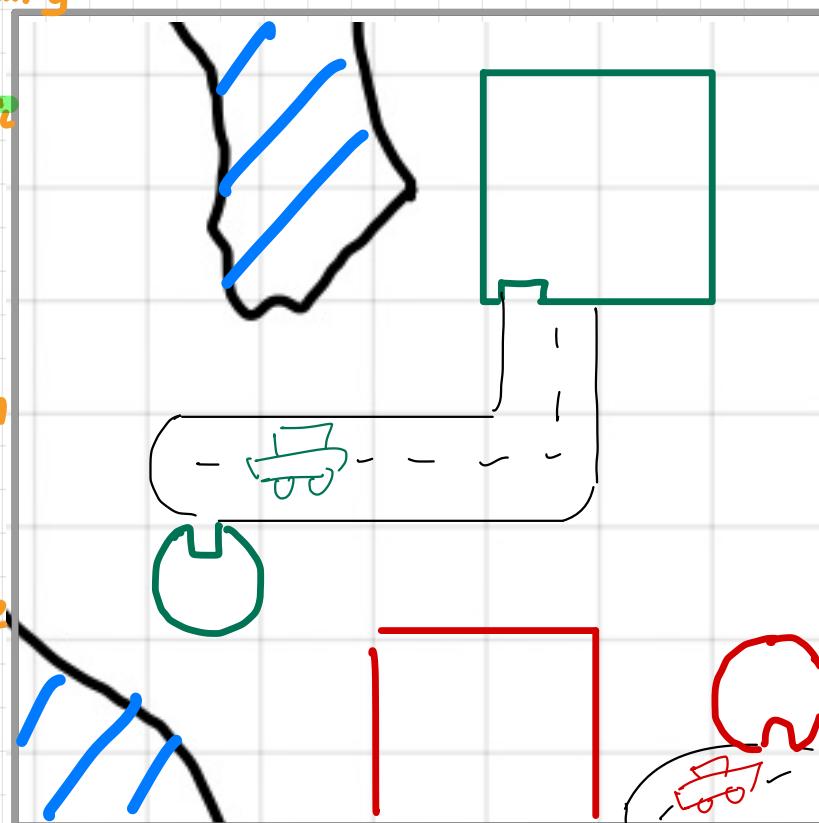
Objective:

- create a road network that can efficiently

handle the increasing traffic demands of the growing city while avoiding traffic congestion and keeping travel times as short as possible

Path finding algorithm
- calculate the shortest routes b/w destinations

- Made up of a grid of squares
- Map gets expanded over time as the city grows and new factories/markets are added



Each house's residents can only go to their corresponding color factory / markets

A piece of road takes up one square.

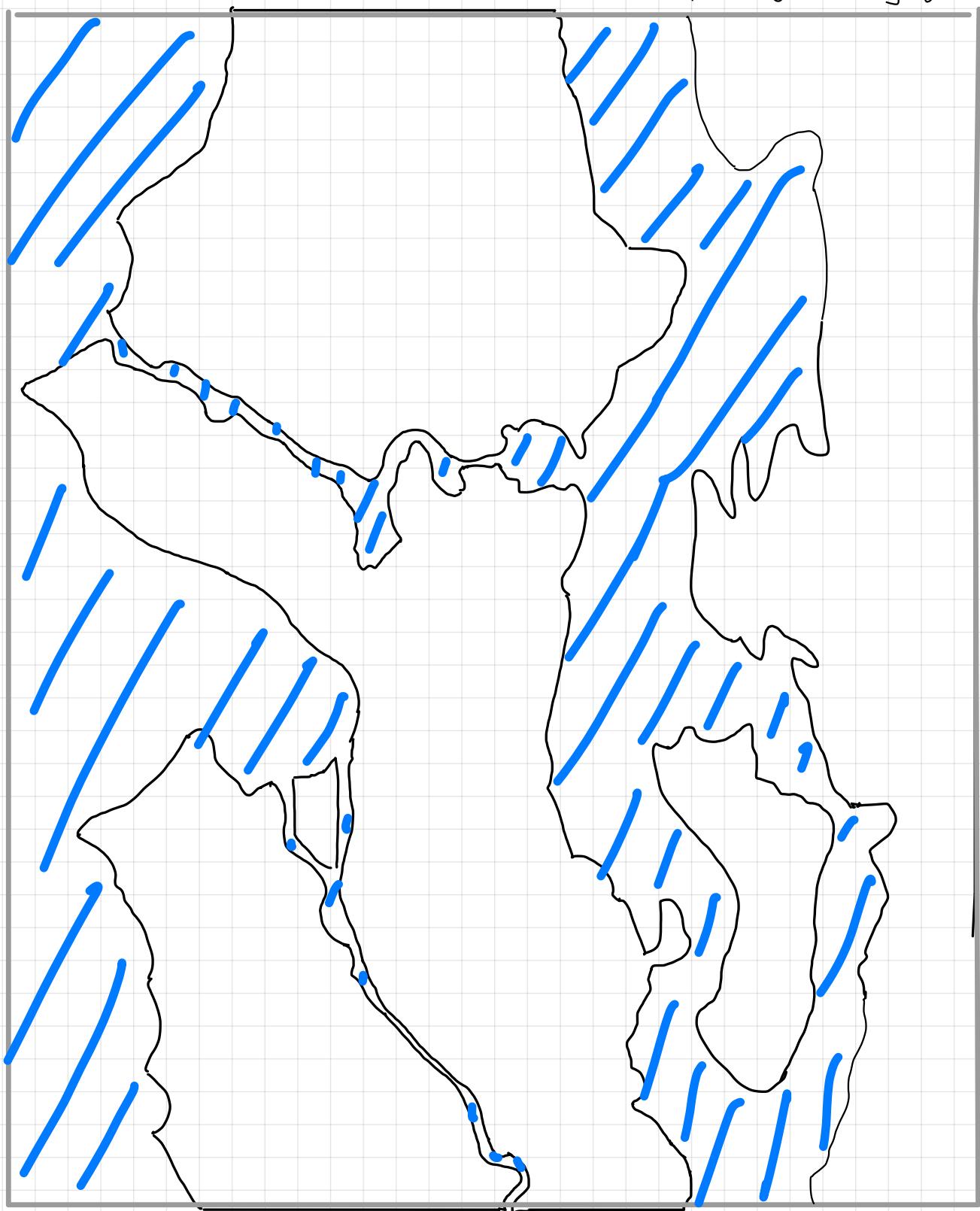
A market / factory takes up 2×2 squares

A house takes up one square.

Scoring system (number of resident served), a car represents a resident.

- Score as much as you can
- No winning condition

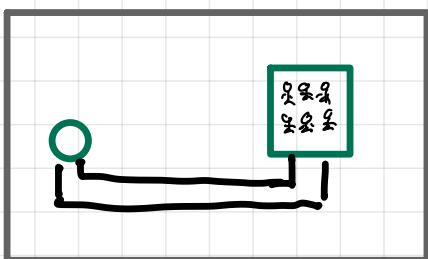
This is the largest map our player can play with so far
if they're very good at planning.



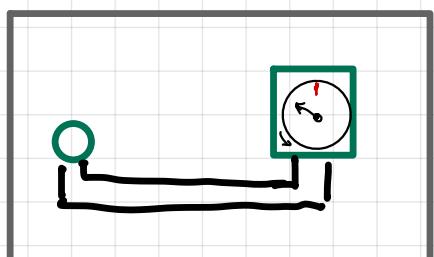
Ending condition:

- Each factory/market can only store up to a certain number of pinpoint (each pinpoint signifies the need for a resident to visit).
- Once it reaches its maximum capacity, it starts counting down for like (?? seconds)
- Users have to make sure each factory/market gets what they need to prevent further counting
- If the time runs out \Rightarrow end game

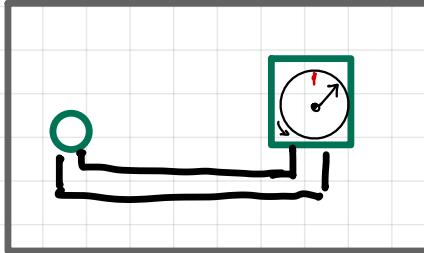
2 - pinpoint



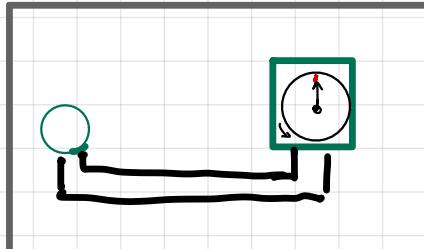
↓



\Rightarrow



\Rightarrow



end

• Grid-based map

↳ simple

↳ intuitive

