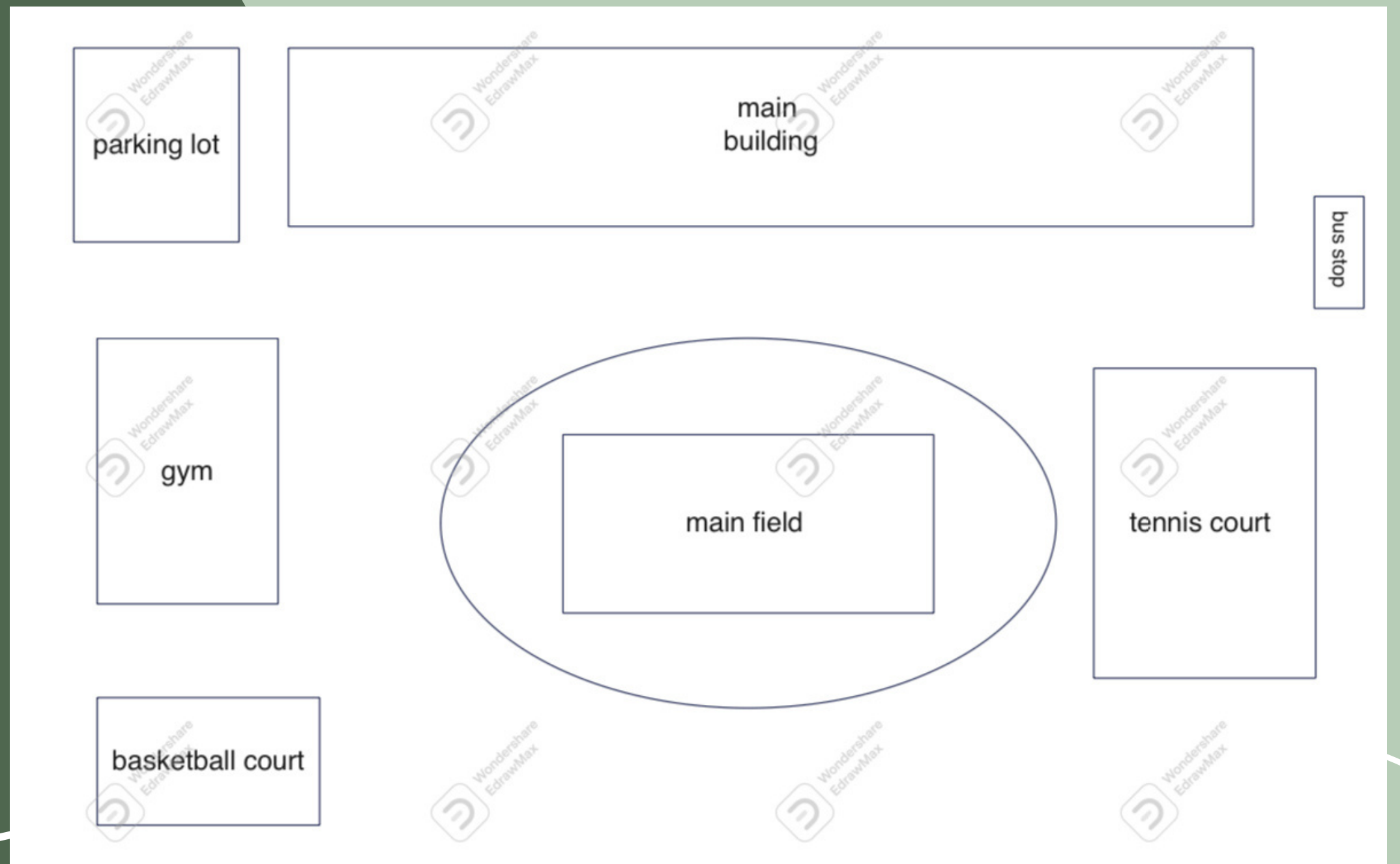


# Seismic Upgrade JO

-Queenie Salazar

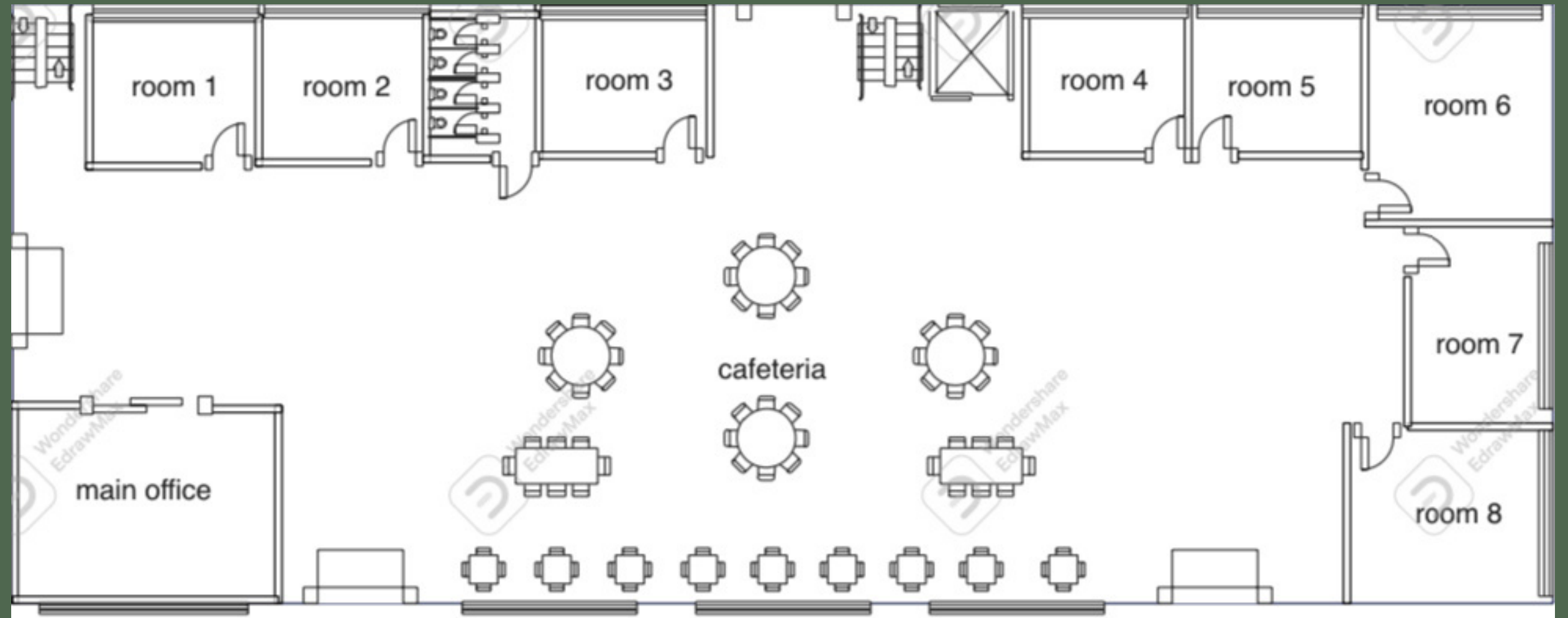
# Bird's Eye View



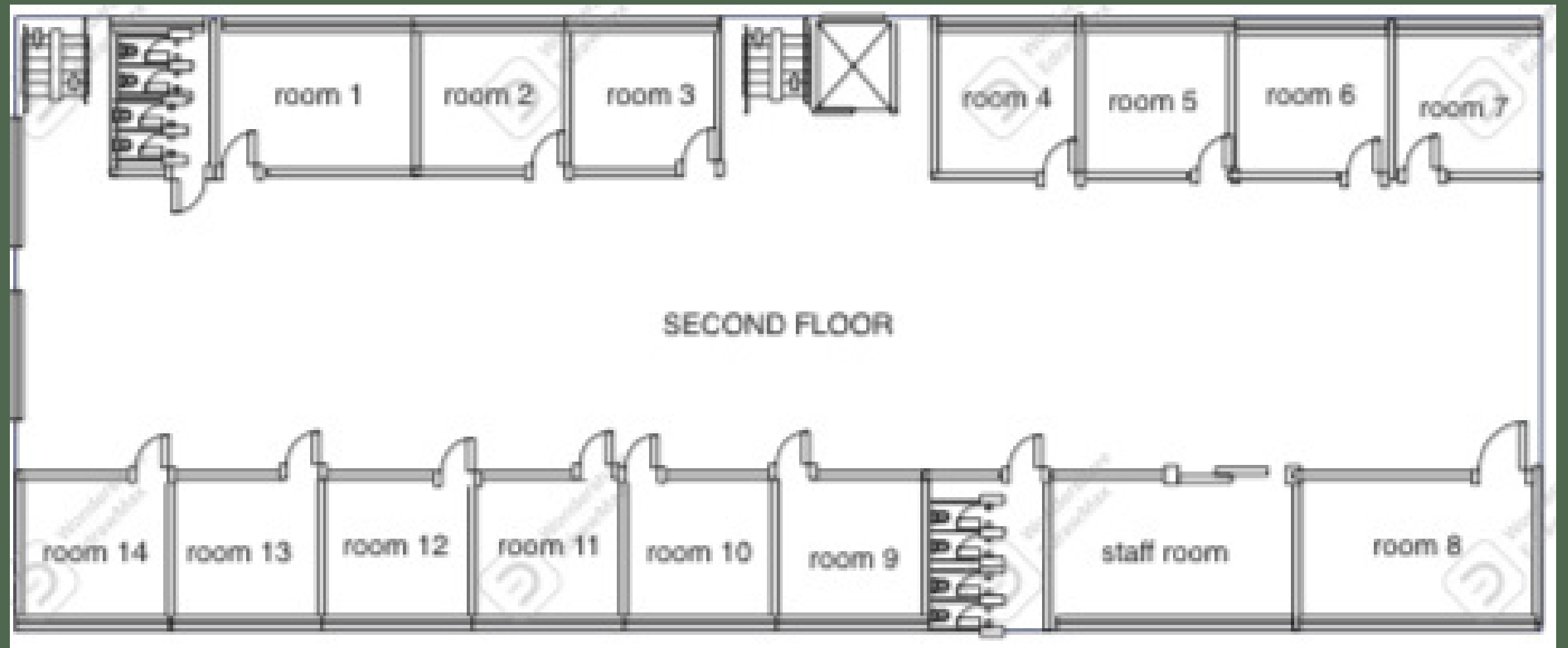


# Floor Plan

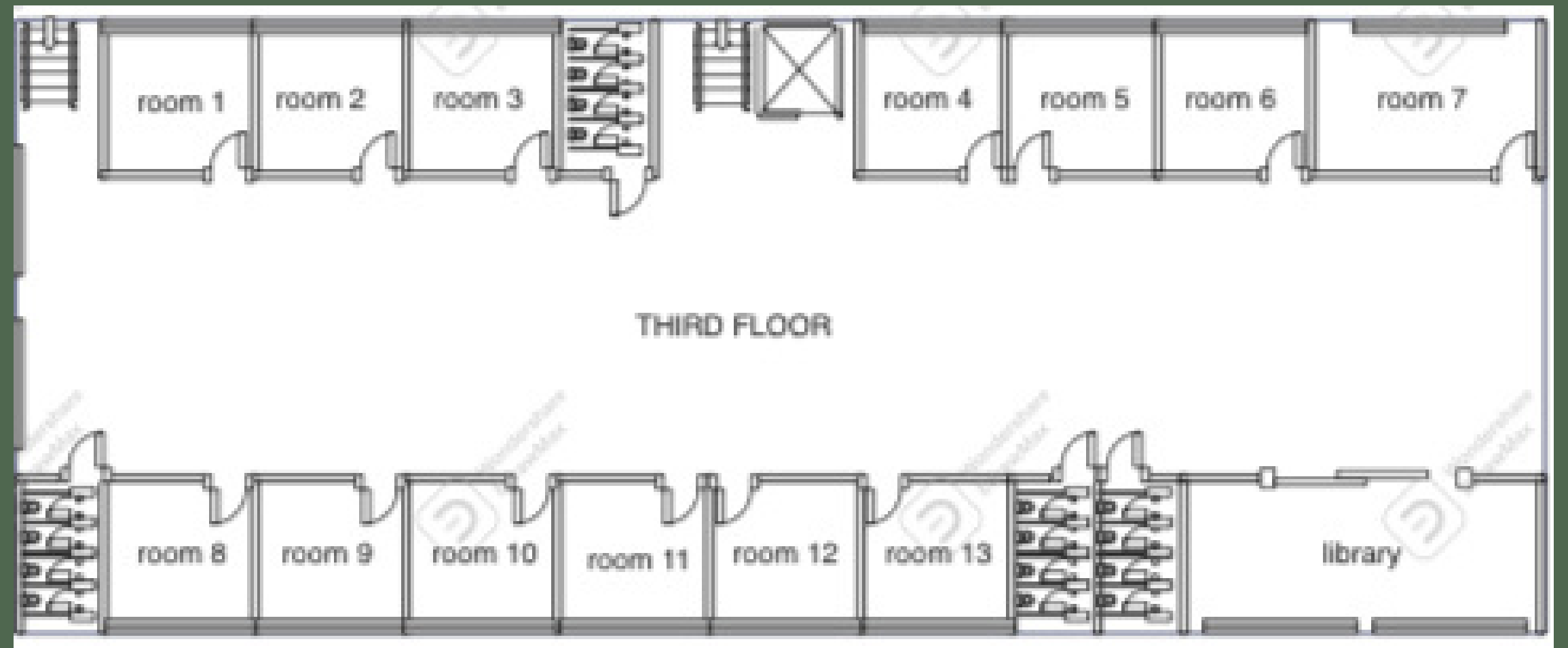
# First Floor



# Second Floor



# Third Floor



The background is a solid dark green color. On the left side, there are two white, hand-drawn style outlines of irregular shapes. One is a larger, more rounded shape, and the other is a smaller, more elongated shape. In the bottom right corner, there is a large, semi-transparent, rounded rectangular shape in a slightly lighter shade of green. The word "Model" is centered in the middle of the page in a white, serif font.

Model



# 41st Ave

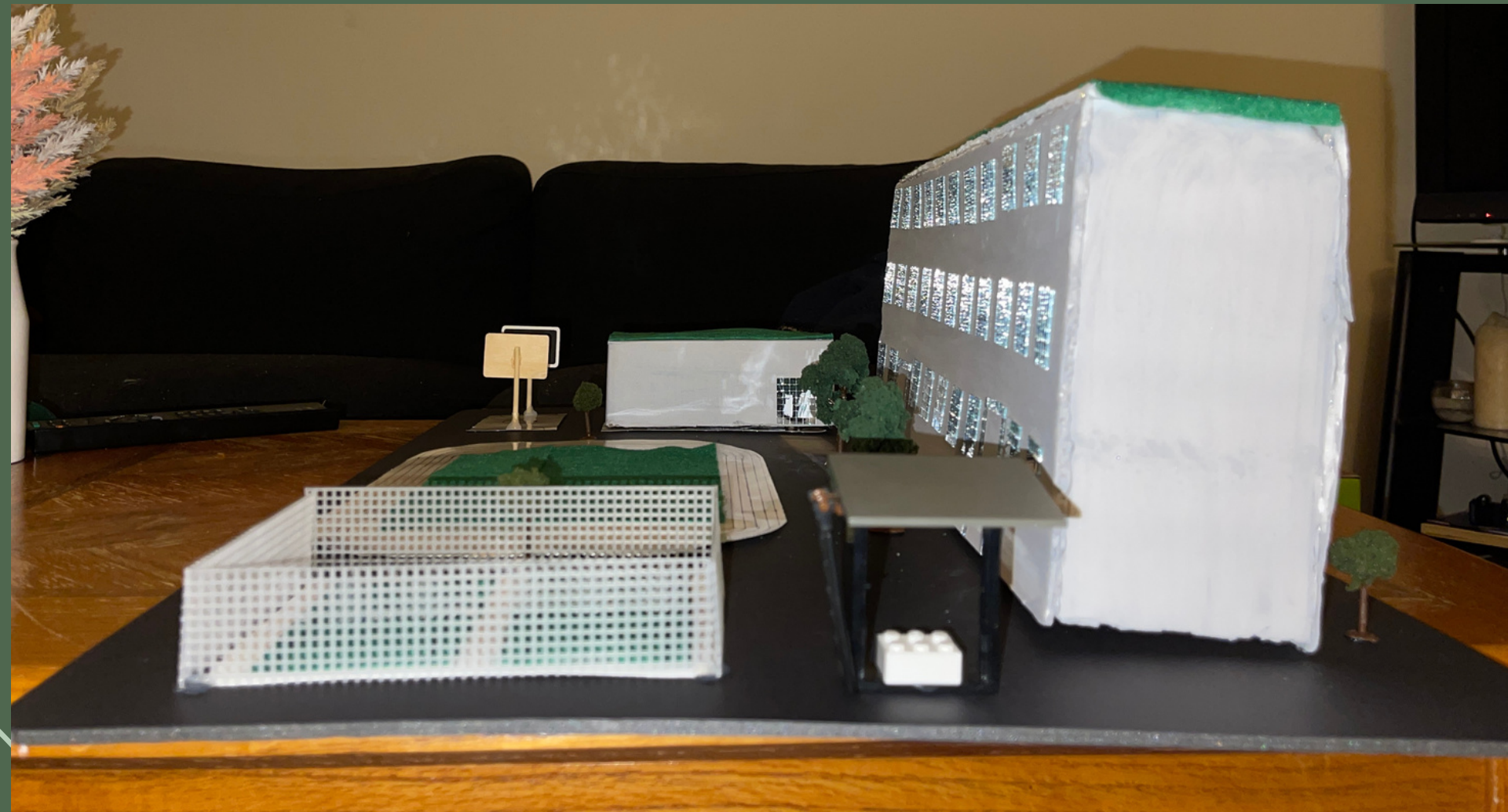




# St. George

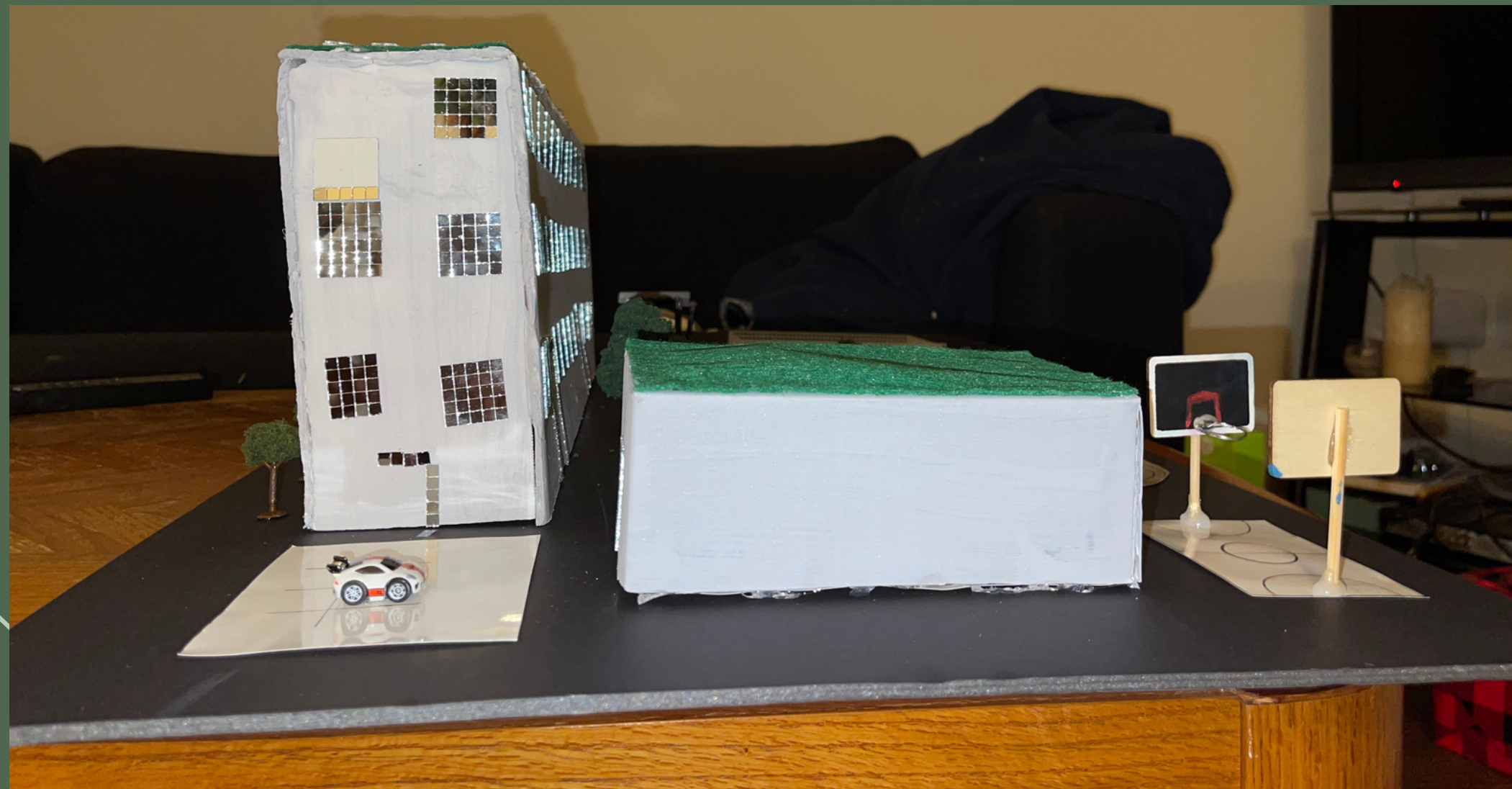


# Fraser St.





# 43rd Ave





43rd Ave

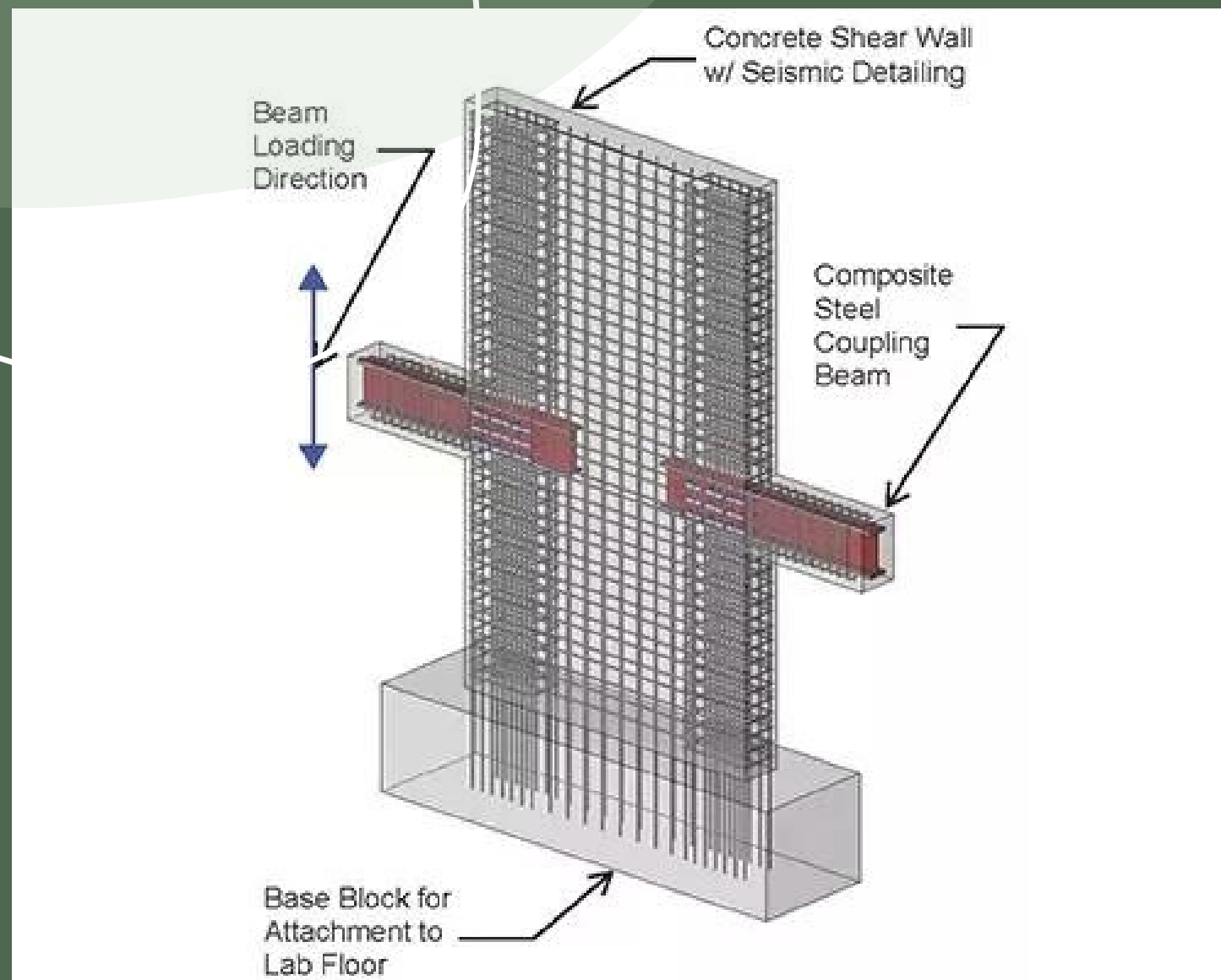


Fraser St.

St. George

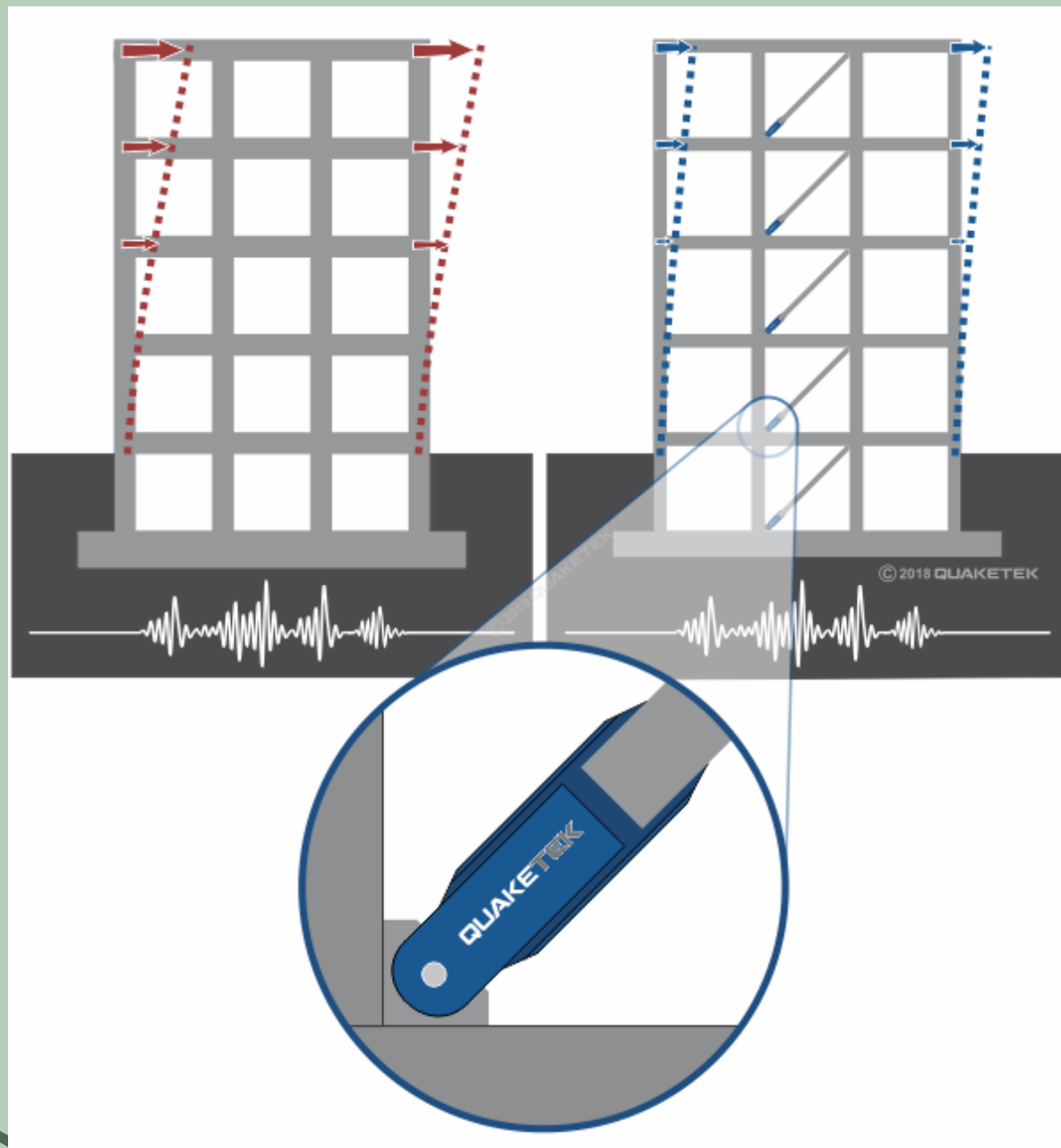
41st Ave

# Seismic Adaptations



**Shear walls** are a useful building technology that can help transfer earthquake forces. Made of multiple panels, these walls help a building keep its shape during movement. Shear walls are often supported by diagonal cross braces made of steel. These beams can support compression and tension, helping to counteract pressure and push forces.





**Friction Dampers** act as a reusable fuse (no need for replacement after an earthquake) which simultaneously dissipate energy. In doing so, the building is able to withstand an earthquake without sustaining significant damage to its structure.

# Amenities/Function

## **Ventilation And Air Quality**

Several studies show that students are not able to focus and feel attentive in classrooms where the air quality is poor.

Additionally, bacteria, viruses and many other pathogens can also multiply in the school premises that could have negative effects on the health. Thus, in order to offer quality education to students, it is vital to provide a healthy and safe environment with proper ventilation.

## **Managing Waste**

Implementing waste management plan.

Putting trash, recycles, food waste bins.

Recycling program and more sustainability all throughout the school

## **Green Roofs**

Green roofs offer added benefits such as reducing and filtering stormwater runoff; absorbing pollutants and carbon dioxide; providing natural habitat; and in the case of intensive green roofs, serving as recreational green space.



# Amenities/Function

## Indoor Spaces:

Classrooms (Science Labs, Math,  
and Language Facilities)

Staffroom

Main Office

Gym

Cafeteria

Library

Meditation Centre

Common Area

## Outdoor Spaces:

Multipurpose Field

Tennis Court

Basketball Court

Parking lot

# Resources

## **Water Sources**

Water conservation initiatives and the installation of water-efficient equipment, such as low-flow technologies (toilets and faucets,) can help the school use less water overall and increase its water efficiency. Implemented some sensor taps.

## **Efficient Energy**

Insulation, energy-recovery systems, and energy-efficient lighting (LED) and appliances are among elements that can be added to a school to help it use less energy overall. Solar panels installed.

# Energy Sources

## **Solar Energy**

Solar power systems derive clean, pure energy from the sun. Installing solar panels helps combat greenhouse gas emissions and reduces our collective dependence on fossil fuel. It can also reduce the school's energy cost.

## **Rainwater Harvesting**

Rainwater harvesting is the collection and storage of rain, rather than allowing it to run off. Rainwater is collected from a roof-like surface and redirected to a tank so that it seeps down and restores the ground water. Its uses include watering gardens, irrigation, etc. The harvested water can also be committed to longer-term storage or groundwater recharge.



Thank you!