

3D DESIGN PROJECT

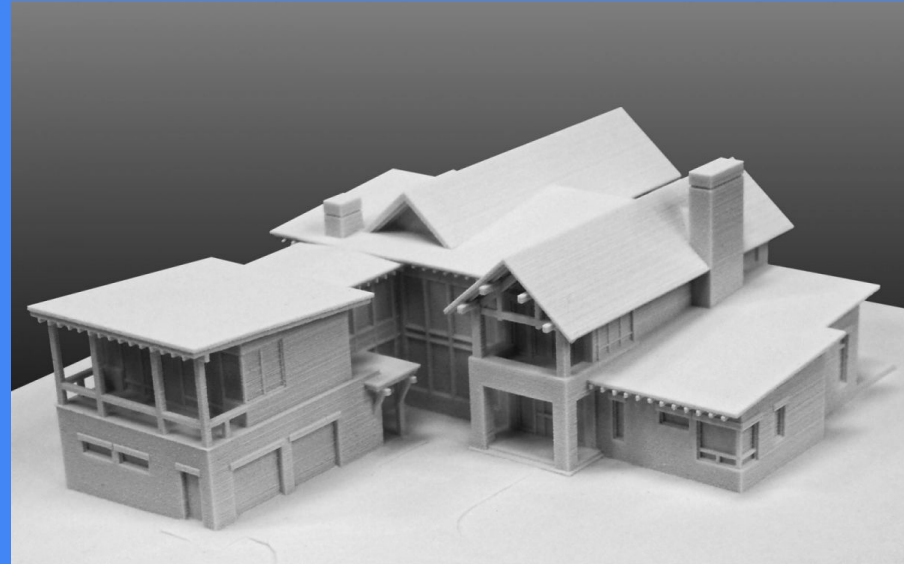


Makerville
7th Grade

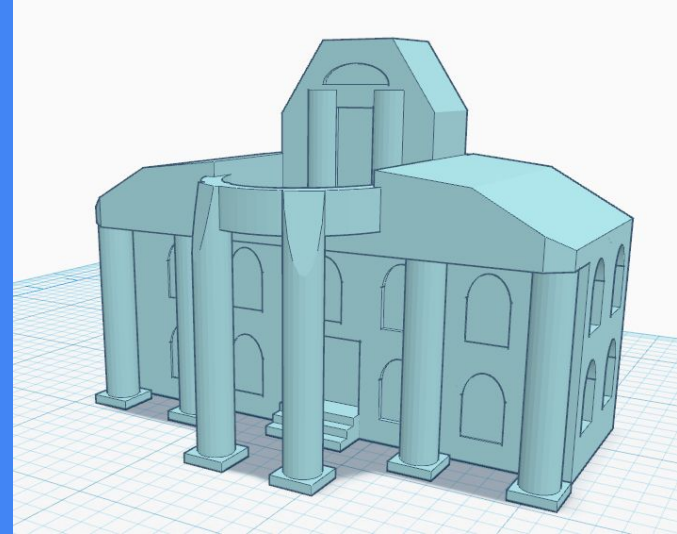
A group of engineers have decided to create a new town. The town of “Makerville” will be a new community complete with schools, transportation, stores, and much more.



- Makerville will be the first town of its kind as all the buildings within the town will be 3D printed.
- The town planners have laid out the community around the mighty Filament River.
- They have laid out the entire town including the roads, building locations, and parking lots.

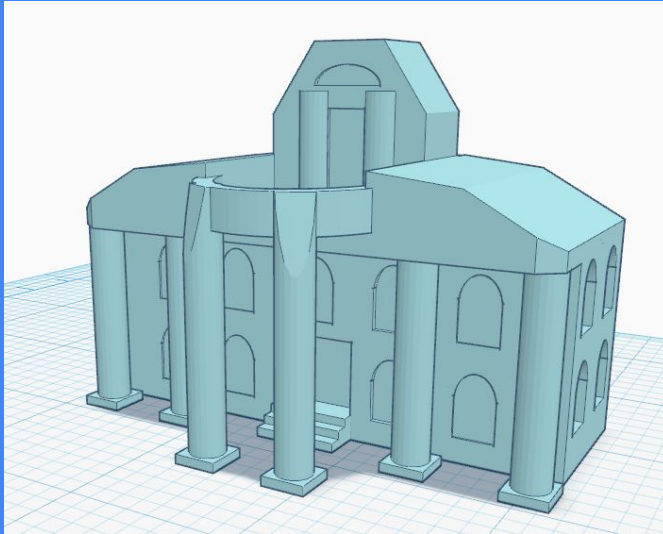
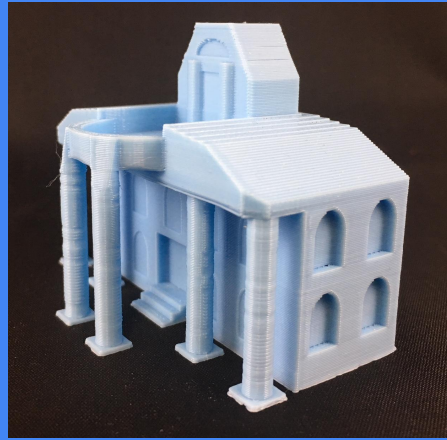


- The community wants each building to meet specific requirements.
- But they also want each building to be unique.
- They have asked each of you to design 1 structure for the town.
- Now that you are expert 3D designers, you will act as the 3D architect for a certain type of building.
- The town will have many different buildings including sports venues, homes, stores, schools, business, etc.
- Each person will design a different building.



Makerville Town Hall

Makerville Town Hall



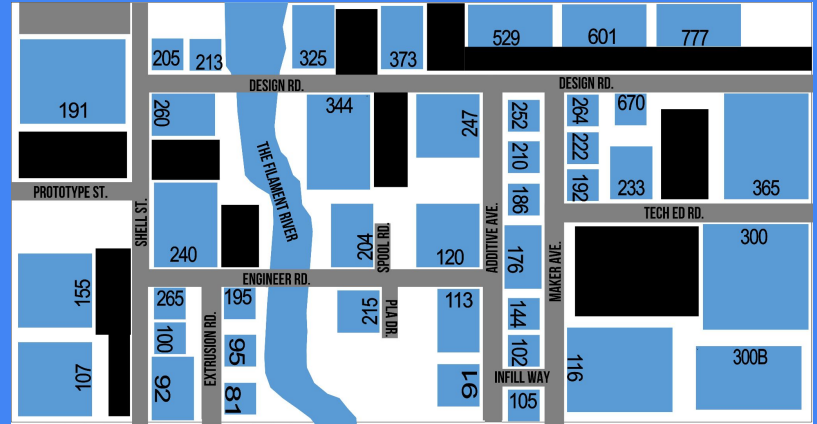
- The building that you design will have to meet a few requirements for size and some building have specific needs.
- The design of the building is up to you. This is your design.
- All of the plots of land laid out for the buildings are squares or rectangle but that doesn't mean that your design has to be that shape! Get creative with your design!
- It simply has to fit within the space provided.



- There are many different architectural styles.
- Do some research about different types and styles of buildings. [Click here.](#)
- Be prepared to explain what style your building is going to reflect.



- The location of each building has already been decided.
- You should find the address of your building on the map and take a look at the physical model of the town.
 - You can see the [full map here](#).
- This may impact your design.
 - For example: If your building is near the river, you may want to make sure it has windows or openings to show off the scenery.
 - Another example: If your building has another building right next to it, you may want to avoid putting doors or openings on the side of the building.



- **Each student will be responsible for a different type of building. There are many different types of buildings.**
- **We will all select a building in a random order. You can pick any building that is left when it is your turn to pick.**
- **[Click here](#) to see the different types of building and their requirements.**

1: Elementary School

- Size limit: 5 inches x 4 inches
- Address: 365 Tech Ed Road
- Design Notes:
 - This building should have a large number of windows and multiple doors.
 - The front entrance is the main focus of this building. What can you do to make this area unique?
 - Think about how classrooms, cafeteria, gym, and offices would be laid out inside the building. How would that impact the structure on the outside? For example if there is a gym in your school, that part of the building would probably be taller than the rest.
 - Should your school be 1 story, 2, or 3?
 - How could you design this school to improve security and make it a safe area for everyone?

20: Multipurpose sports stadium

- Size limit: 4.5 inches x 3 inches
- Address: 344 Hawk Road
- Design Notes:
 - The town little leagues and other sports team will play here.
 - Should have stands and a concession stand.
 - It should be designed for multiple sports, not just football or baseball.