

Practice exercise

Create your own conceptual site layout proposal

In this exercise you will develop your own site layout proposal and apply the modeling and building programming information provided.

Learning objectives:

- Understand and apply the basic building modeling tools.
- Work **within** the existing site limits and **with** an understanding of the site context.
- Develop an initial site layout strategy with an understanding of the baseline site data before running simulations (the observational site information).



The completed exercise

1. Using the following building program, develop a site layout with both the exterior spaces and massing volumes for the interior spaces. Your presentation will be your proposal from your Forma Canvas, so make sure it is well organized, the functions/colors have been applied, and that your model is located within the site limits on the site.

Note: the spaces are approximate; stay within about 15% of the suggested size.



Figure 1. Programmatic Massing.

Lower Level: 10,000 sq ft. interior (929 m²)

- Café with outdoor seating: 5,000 sq ft interior and 7,500 sq ft exterior (465 m² and 697 m²)
- Apartment Lobby/Entry: 500 sq ft (46 m²)
- Two commercial spaces with the remaining entry level space
- Parking – adjacent parking across the street

Upper Levels: (3-4 Levels) 30,000-40,000 sq ft. (2,787–3,716 m²)

- 4x small studio apartments: 500 sq ft each, 2000 sq ft total (46 m² each, 186 m² total)
- 10x One-bedroom apartments: 750 sq ft each, 7,500 sq ft total (70 m² each, 700 m² total)
- 6x Two-bedroom apartments: 1,250 sq ft each, 7,500 sq ft total (115 m² each, 700 m² total)
- Upper roof deck and community kitchen: 1,000 sq ft (90 m²)
- Workout room: 500 sq ft (45 m²)

- Laundry: 250 sq ft (23 m²)
- Circulation, utilities, community spaces will make up the remainder of the area.

Grading Rubric:

	Advanced	Proficient	Basic	Emerging
Build program accurately followed	Well considered idea that meets the program criteria	Follows the program closely, but perhaps some odd decisions	Missing some or incomplete elements of the building program	The design lacks a connection to the building program
Clarity of the model elements – with appropriate functions and colors added	The building massing has been given functions and is schematically clear	Completed, but not all of the functions clear or applied	Completed massing, not clear on functions within the design	The model is missing, incomplete, or not available
Response to the formal context on the site	The design engages the surrounding context in an appropriate and interesting way	The project responds to the site edges and streets	The design is missing opportunities and understanding of the context	Incomplete or not within the site parameters
Creativity in the overall building design form	The building form shows innovative thinking, and design the begins to respond to both environmental and local contexts	There is quality to the design and creativity	Quality in the design, but it does not yet consider the local or environmental contexts introduced	The design is either incomplete, or lacks any connection to the goals and contexts of the project

Voice-over for the answer key video:

When I am evaluating the building massing options that the students have created, there are a few layers that I want to see, showing if the student is being considerate of the site context, the users, and environmental factors.

First, is the design on point with its area? You can check this by evaluating the BC number (Building Coverage) in the metrics panel. This should be around 10,000 square feet (or 930 meters squared). This should leave adequate area left for the outdoor seating space. The lower level should begin to imply the potential of working with the street edge, and might even begin to show ideas of how entry could happen through form and hierarchy.

The upper level floors (likely residential) can be evaluated by selecting a single level and verifying the GFA number (gross floor area) in the metrics panel.

Second, the model should be divided into functions, clearly conveyed by schematic colors, showing the café space, commercial space, and residential. Each function should have an appropriate location within the model, and on the site.

Third, the project should fit into the site, and within the site constraints. Is the form showing the potential of adding to the street front, does it start creating interesting places, is there the potential for both the public to visit, and the residents to arrive with some separation of public and private, are the commercial edges located correctly with the street front...huh...maybe I should have put the café on the west side on this design...regardless – potential...are we headed in a direction with intent...

...which leads to creativity – in short with this, I want to be able to see that a student KNOWS what they are creating. I am not necessarily after a revolutionary form, the goal is for the student to have imagined the building in action, and how it might respond to conditions of use, context, and environment.