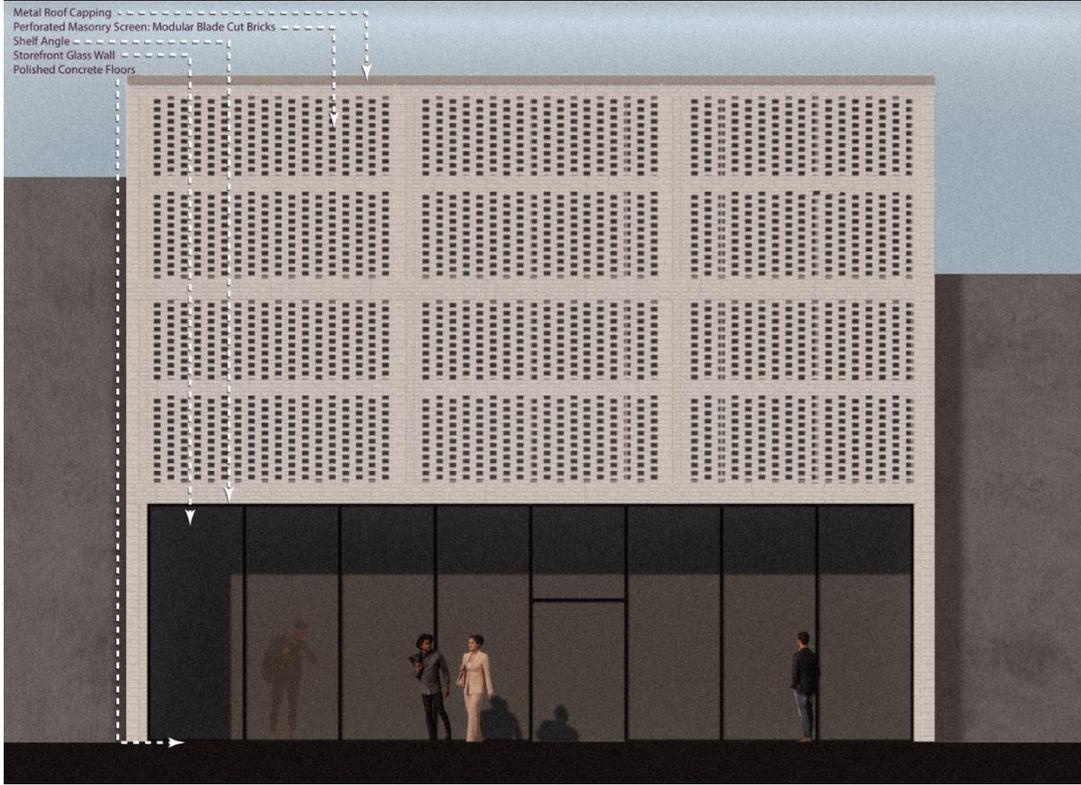


Masonry Lab

Team 2

Masonry Lab Elevations

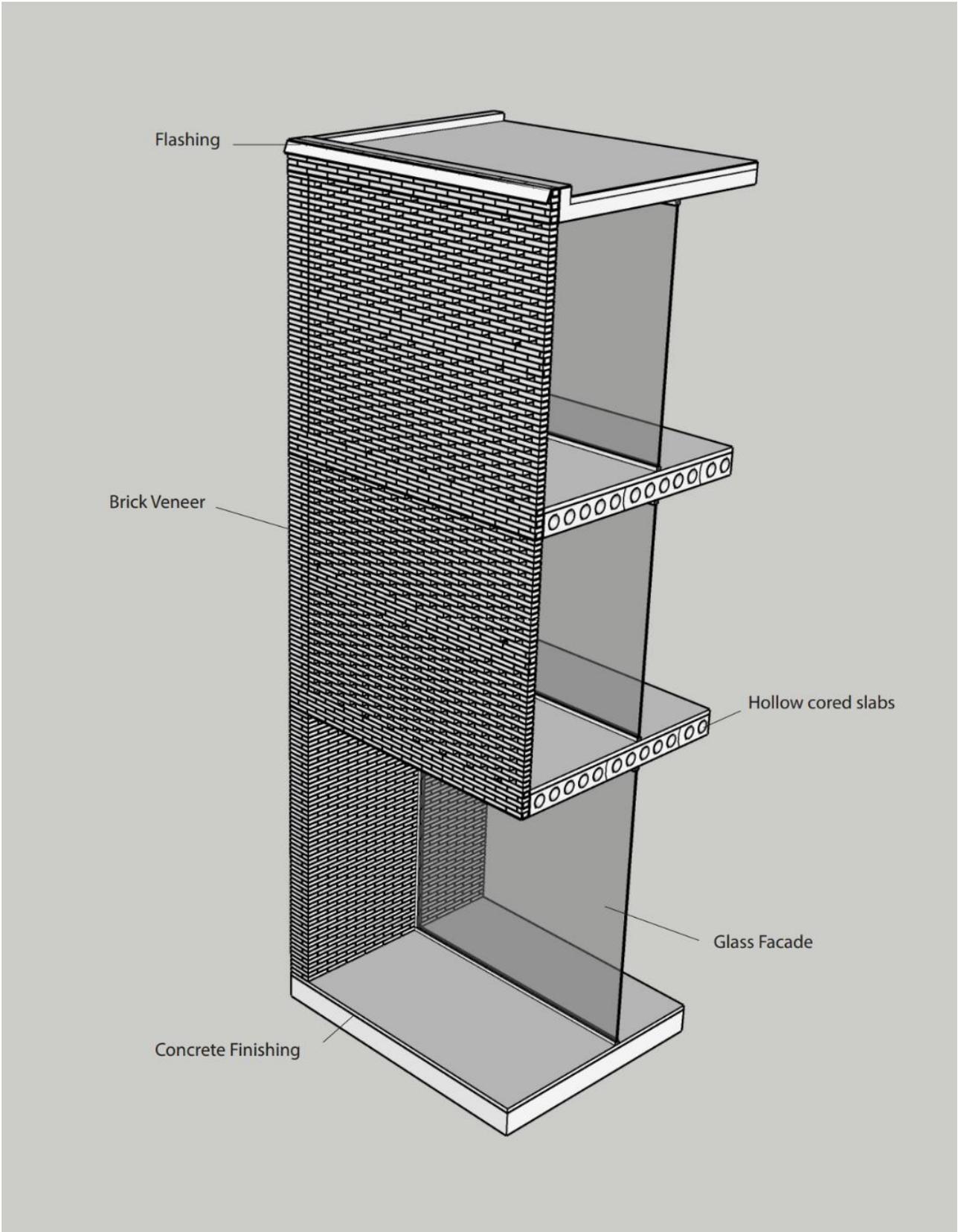


As a group, we wanted to do a masonry façade that was not necessarily solid. We wanted to be able to manipulate the space more than a solid face with punched windows. Because of this, we landed on the idea of a having a screenlike façade that allowed light to filter through into the spaces behind.

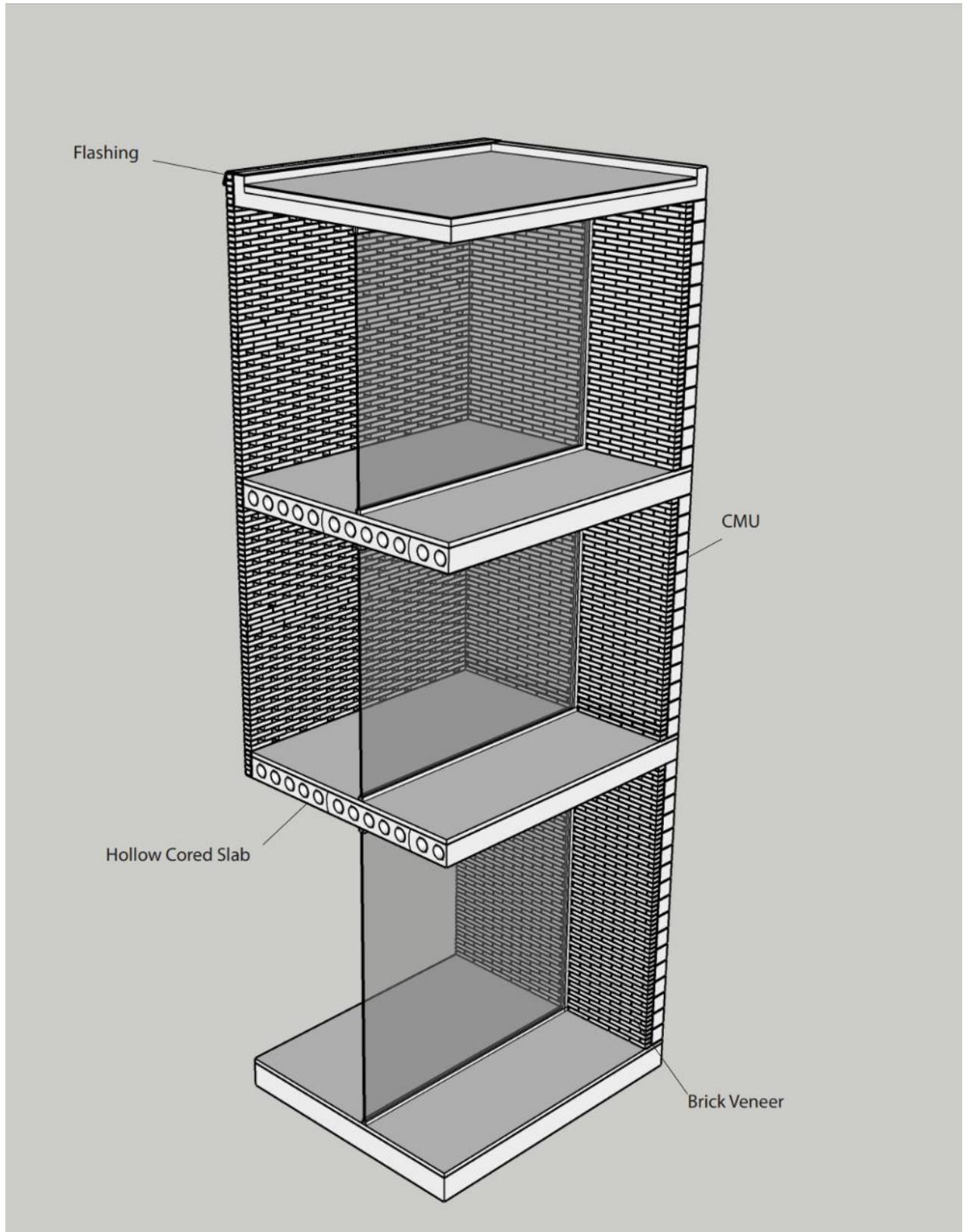
The bottom floor is 12 feet tall as it is an exhibition space and is well lit with the open exterior to draw people in rather than feeling impenetrable or private. Going up, we lowered the level of the floors as they were less crucial spaces to the overall building, and we lowered the light levels for a more intimate feeling for the offices and training spaces.

To better support the floating masonry screen, we added solid brick cross hatching throughout the design. We chose a light-colored brick to further emphasize the idea of lightness to juxtapose the fact that the structure is an infill as well as being constructed of heavy masonry units. We looked at specific vendors and found Taylor Clay Products Inc. (Salisbury, NC), and came to the consensus that we preferred the “Alpine French Gray Modular Blade Cut” not only for the color but because with the blade cut, the brick will be the same on both the front and back of the bricks as both will be visible. We also selected elongated bricks at the size of 12” x 4” x 2” to allow for wider gaps in the screen façade.

Masonry Lab SketchUp 1

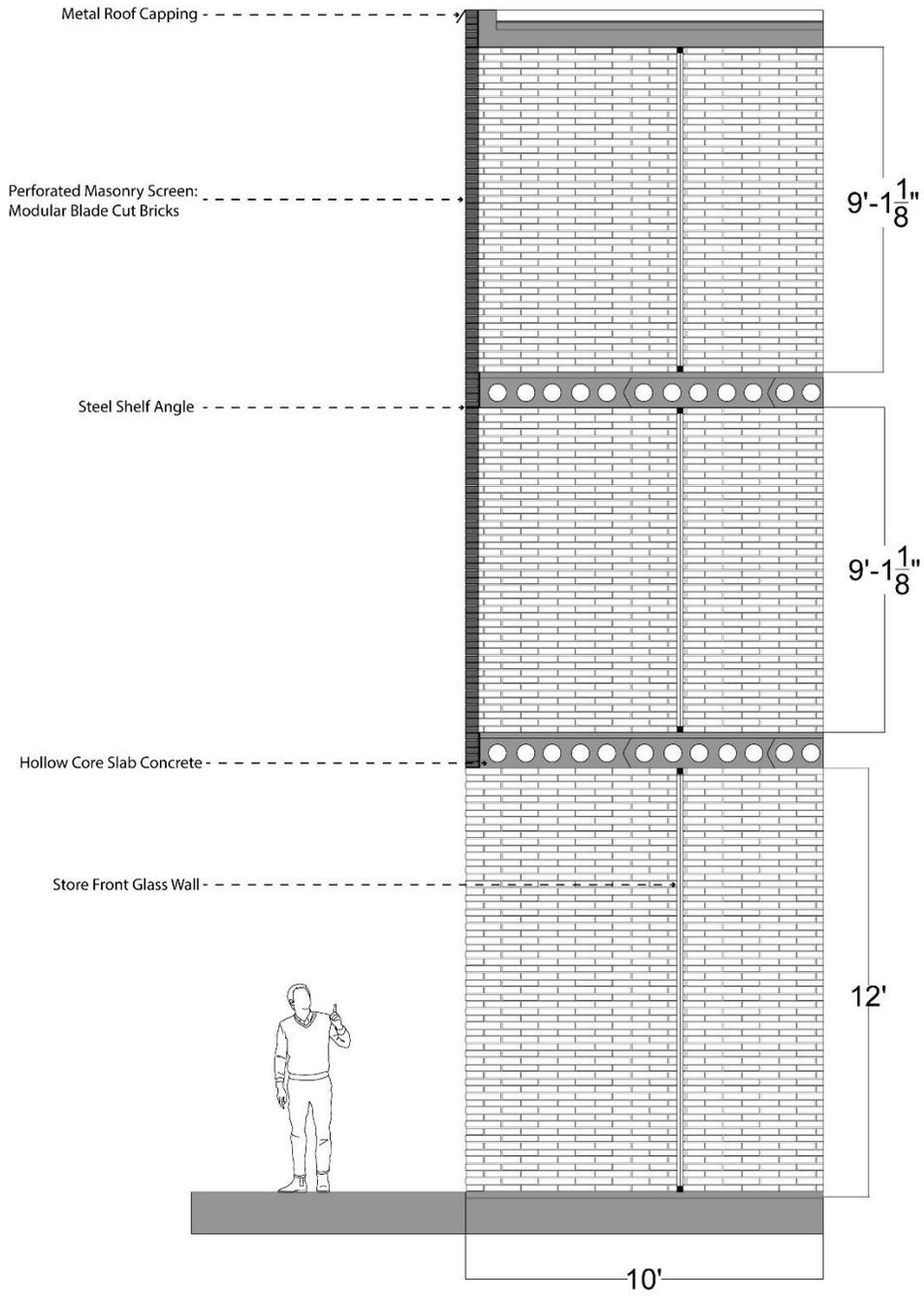


Masonry Lab SketchUp 2



The original concept was to leave a small gap between the wall and the glass behind to let more light in, but due to the issue of rainwater, we decided to close the top fully and implement metal caps and flashings to wick water away from the mortar and from penetrating the screened balcony as easily. We moved the glass back on each floor to allow access for pedestrians within the building as well as for ease of access if repairs or updates are necessary.

Masonry Lab Section



The section shows our decision to use hollow core slabs for the floor as our span is only 40'. The precast slabs would cut back on time and labor costs compared to if we were to instead cast our own, as well as eliminate the need for transverse supports. On top would be a 2" unifying layer of concrete to connect and strengthen the coagulation of slabs.