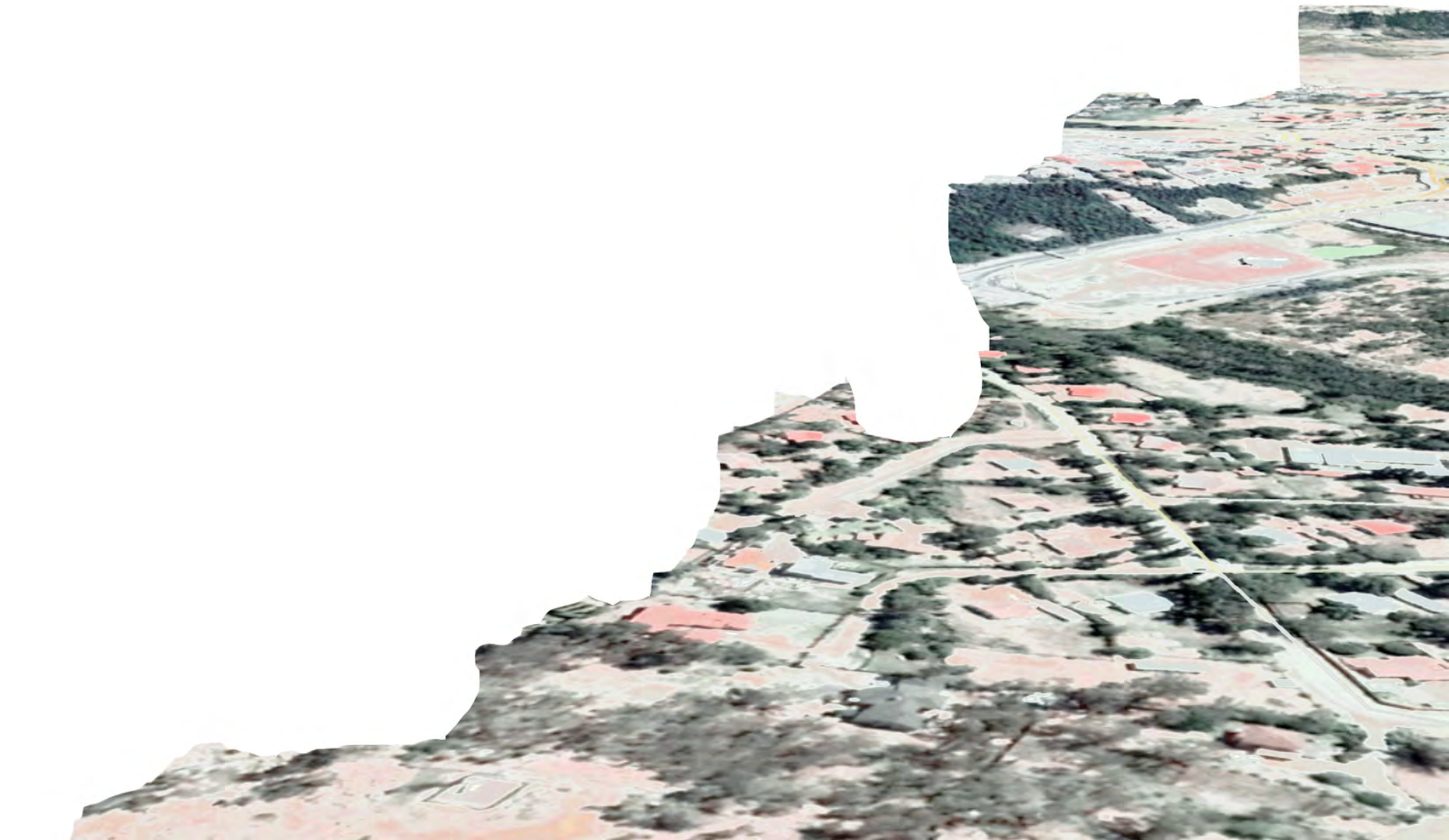
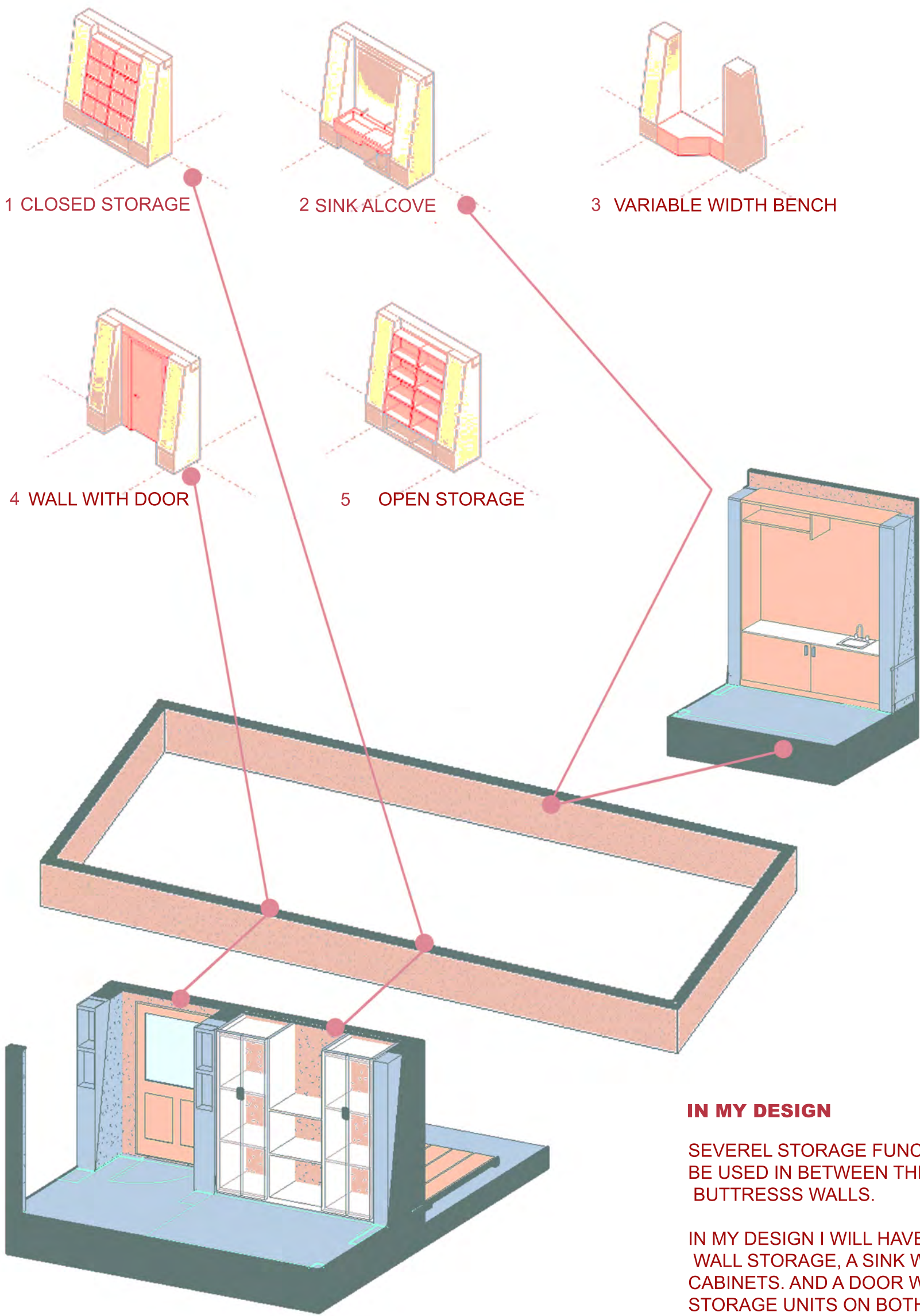


AFFORDABLE HOUSING DESIGN MASERU - LESOTHO



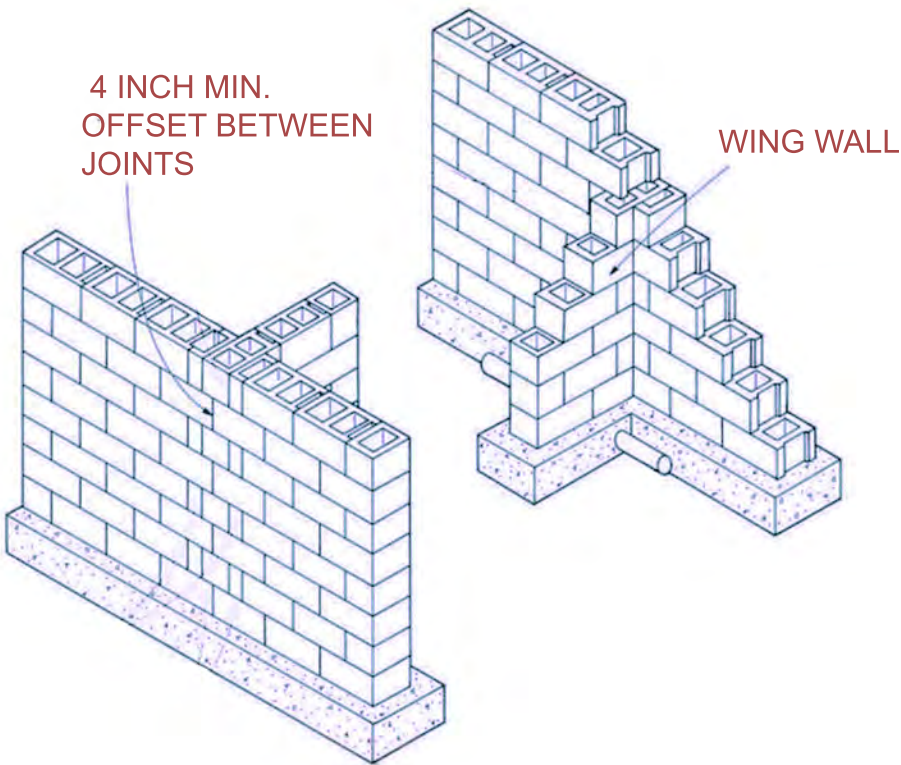
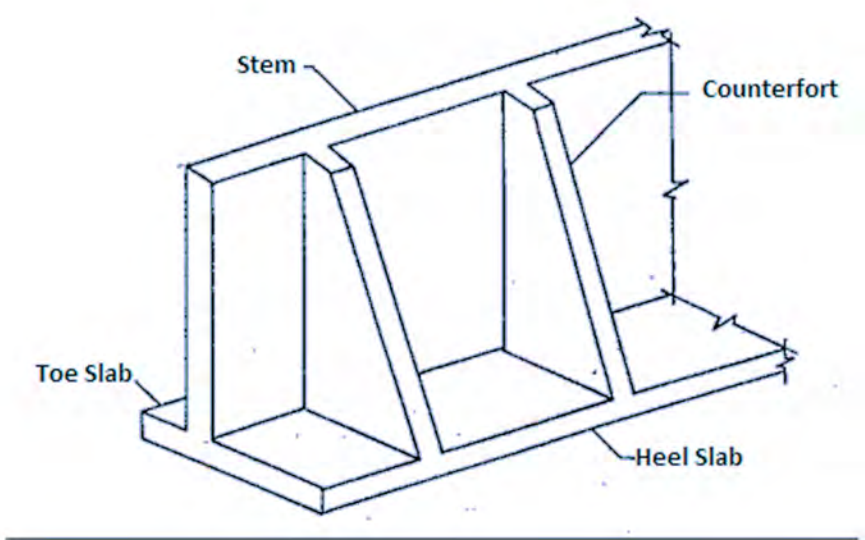
HOW CAN WALLS BE USED AS STORAGE IN SMALL LIVING SPACES?

I WORKED ON A DESIGN FOR THIS UNIT THAT SAVES SOME OF THE FLOOR SPACE BY USING THE CONCEPT OF WALL STORAGE.

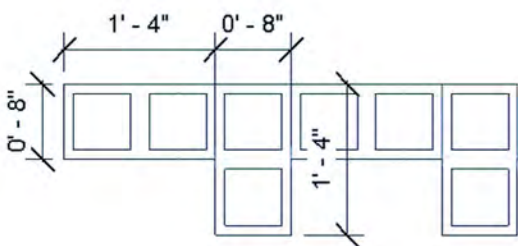


BUTRESS WALL

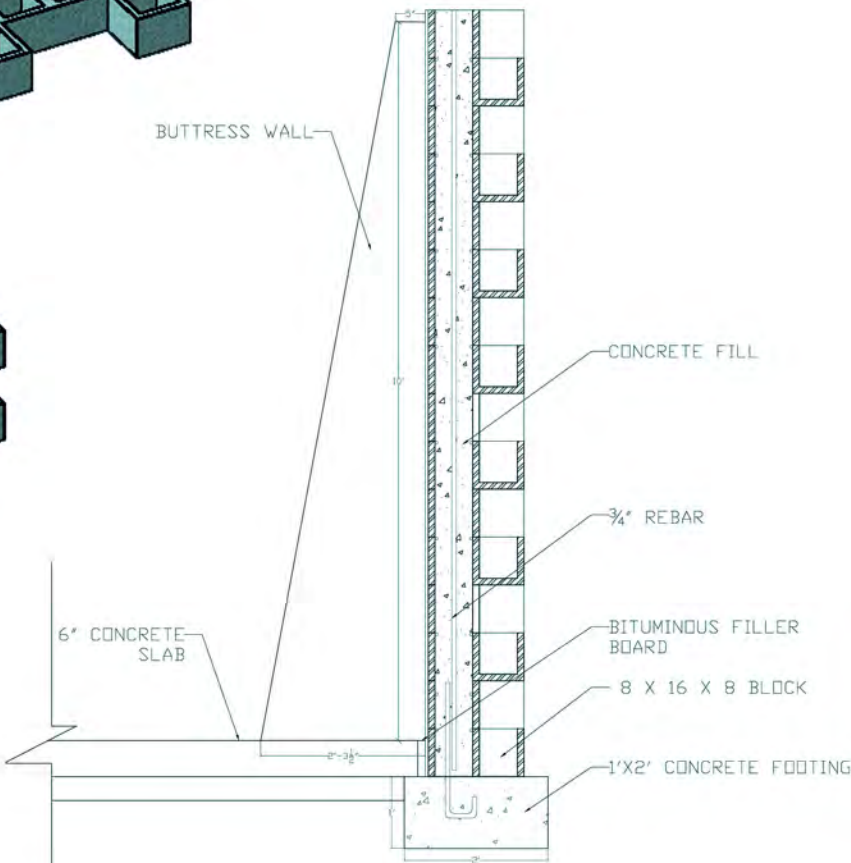
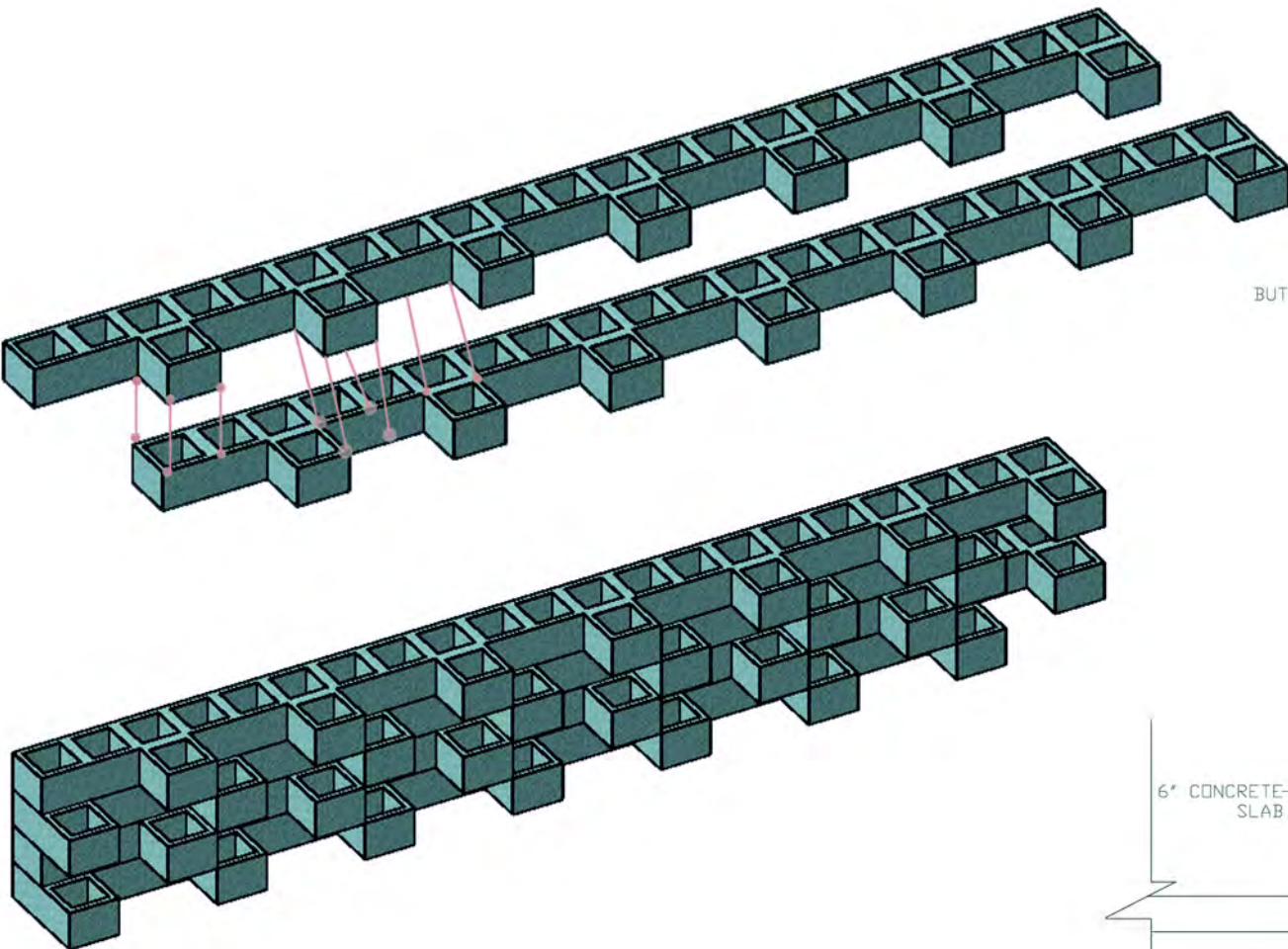
I WILL BE USING BUTTRESS WALL AS AN EXTERIOR SUPPORT OF MY HOUSING UNIT.
ALSO, THIS WALL WILL BE USED AS A DECORATIVE ELEMET IN SOME AREAS INSIDE MY UNIT.



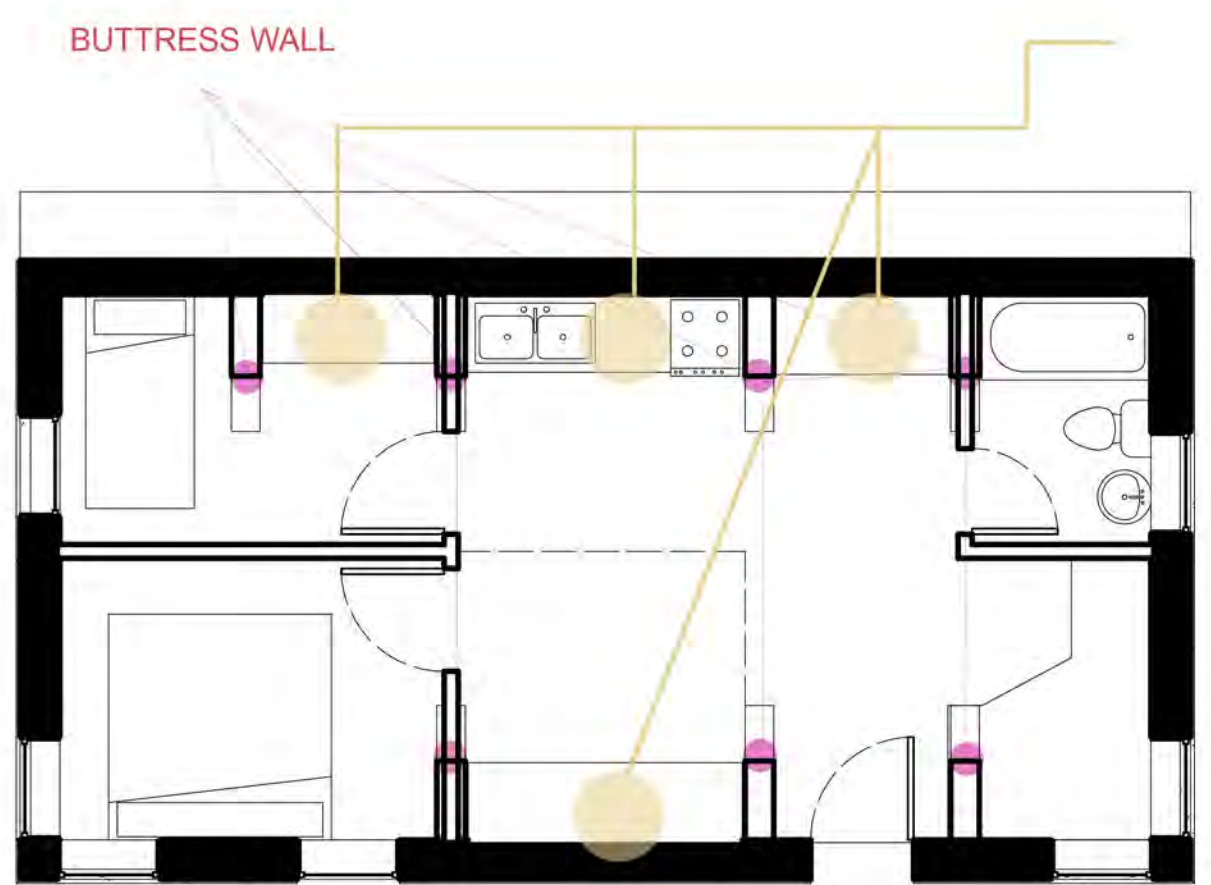
CREATIVE BLOCK WALL SOLUTION



FACADE MATERIAL
CONCRETE BLOCK

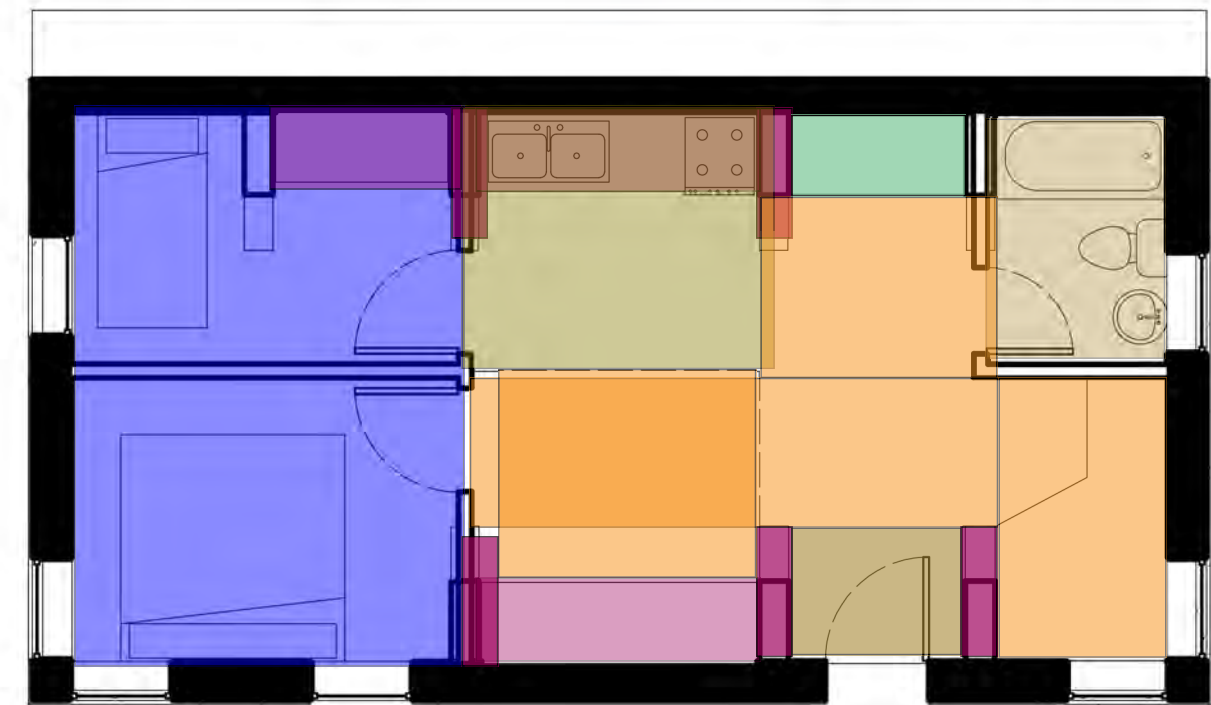


ZONING



WALL STORAGE

SPATIAL RELATIONS



- BEDROOM
- CIRCULATION
- DINING AREA
- WALL STORAGE
- BATHROOM
- KITCHEN STORAGE
- STUDY AREA

In this project I seek to provide a decent housing unit that includes two bedrooms, a kitchen area, one bathroom and a small living space. This unit provides a safe living space for vulnerable families and orphans. To tackle the problem of the small unit size, I used spatial order to make this housing unit become like a home. For my structure I used buttress walls. These walls provide extra support for a wall by transferring horizontal pressure into vertical pressure onto the footing below. Buttress walls have been used for years in masonry and other forms of construction. I used hollow concrete blocks for my exterior. Concrete blocks are excellent at keeping outside temperatures from entering the home, often resulting in lower energy costs. They are also strong and durable. Besides their function use, block to block can be arranged in an artful way, creating an aesthetic touch to the façade of this small housing unit. To increase the energy efficiency of the unit, sheep wool insulation is used in the design. sheep wool insulation helps keep the home warm in the winter and cooler in the summer. Also, using the sheep wool as insulation has health benefits and creates a feel-good indoor climate. I also used the concept of wall storage in small living spaces. By using buttress walls, the space between the two walls is used for different storage functions. I used this concept in an- 8'-0" x 9'-0" wall storage, a small kitchenette (8'-0" x 9'-0"), and small storages on both sides of the main door. Also, this housing unit can be used in row housing, by laying these units out along the contour line on the same level.

<https://www.thegreenage.co.uk/advantages-sheep-wool-insulation>
[/http://www.fao.org/wairdocs/ilri/x5485e/x5485e0v.htm](http://www.fao.org/wairdocs/ilri/x5485e/x5485e0v.htm)
<https://www.asanduff.com/advantages-of-concrete-building-blocks/>

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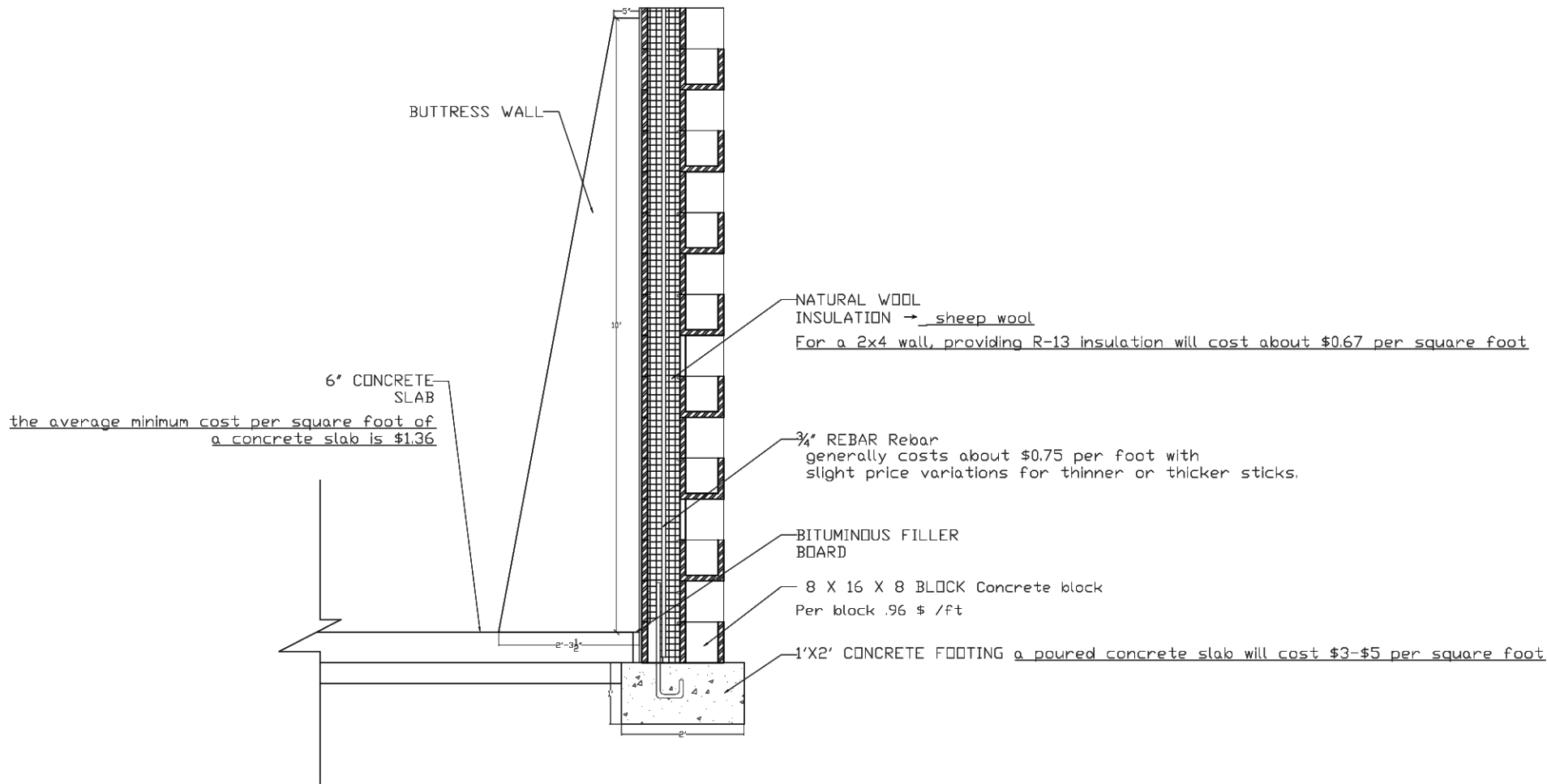
I also used the concept of wall storage in small living spaces. By using buttress walls, the space between the two walls is used for different storage functions.

Also, for my exterior I used an artful block to block arrangement to create an aesthetic touch to the façade of this small housing unit.

BUILDING PARAMETER = 100' 8"

UNIT AREA = 566 SF

CONCRETE OR TEXTURED PLASTER	0.29\$	164\$	2348.48 LSL
1/2" thick plywood ROOF	1.19\$	673\$	9637.36 LSL
WOOLINSULATION	0.67\$	67.5\$	966.60 LSL
REBAR	0.75\$	424\$	6071.68 LSL
CONCRETE SLAB	1.36\$	770\$	11026.40 LSL
FINALCOST:		2100\$	30072 LSL

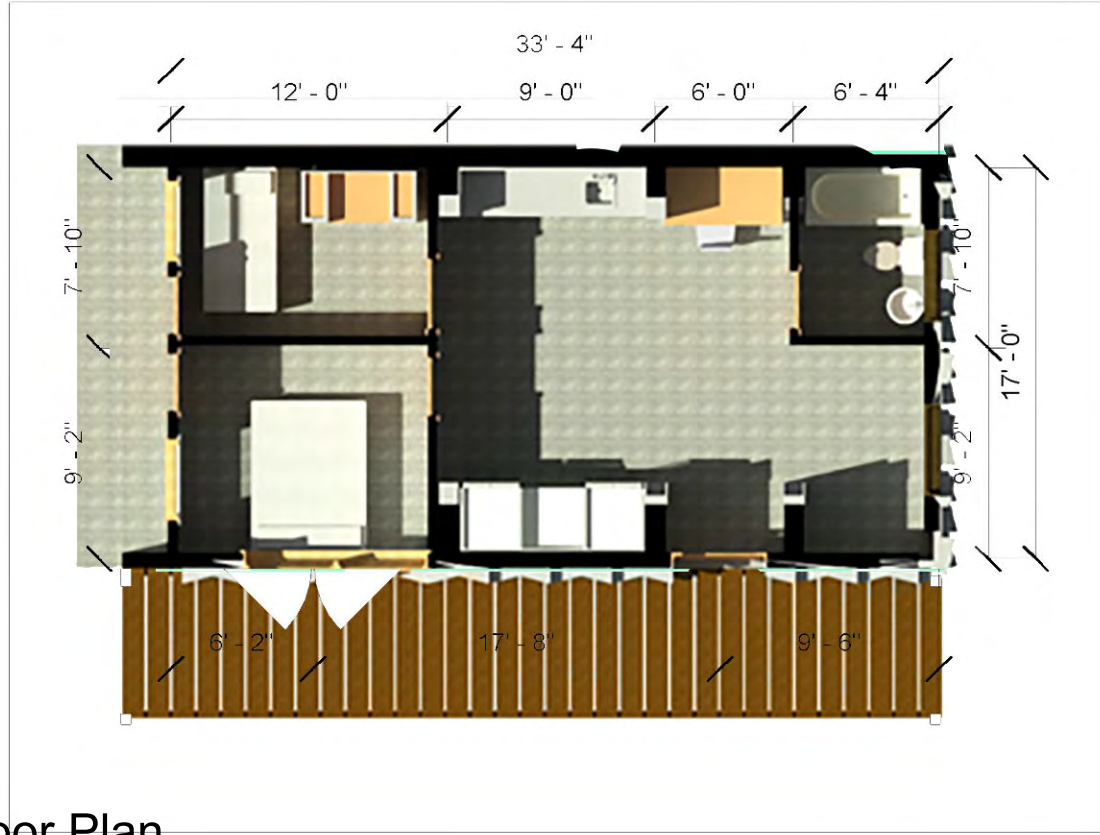


AFFORDABLE HOUSING DESIGN

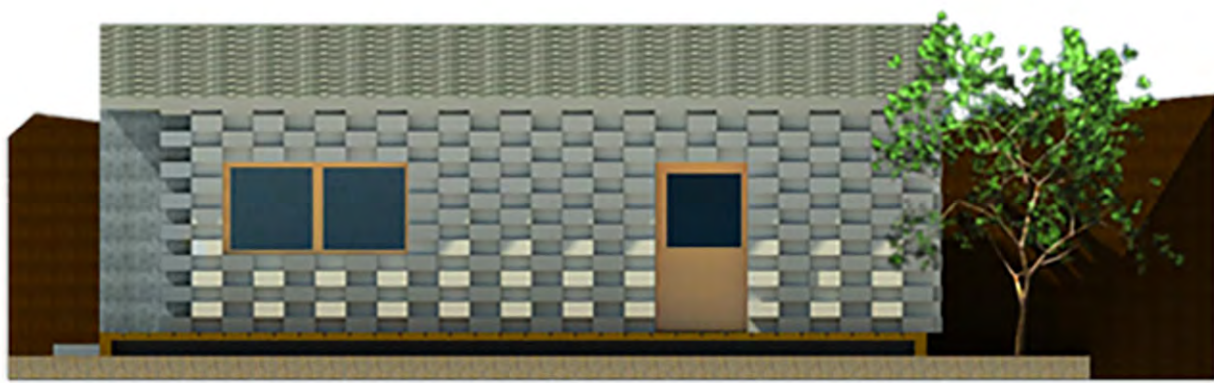
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Floor Plan
Scale = 1:100



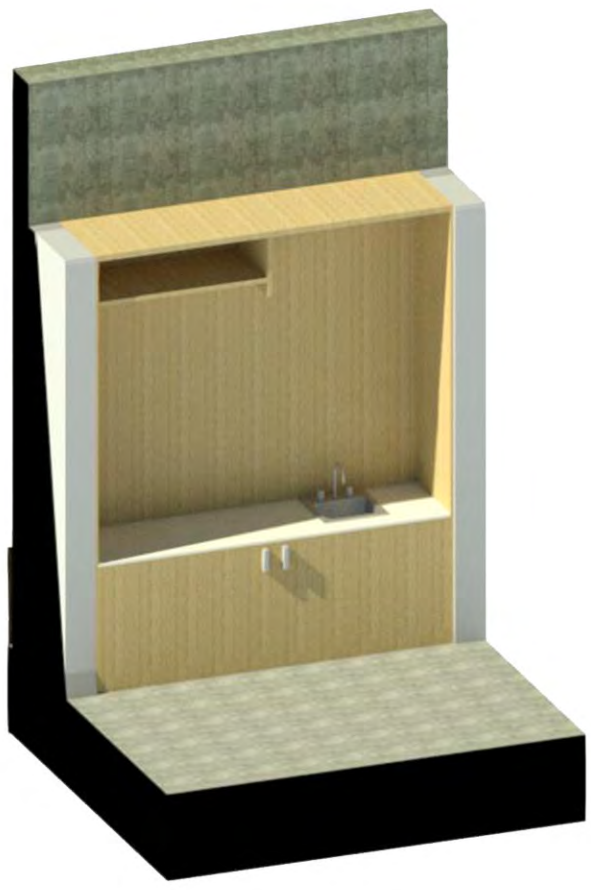
Front Elevation



Long Section



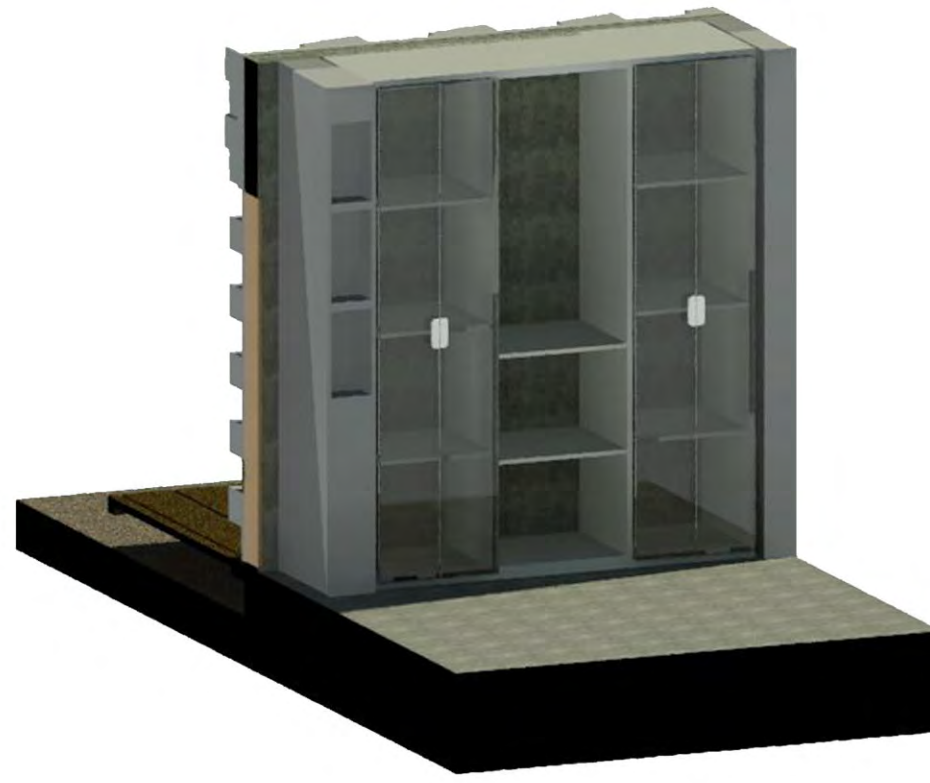
Short Section



Sink storage



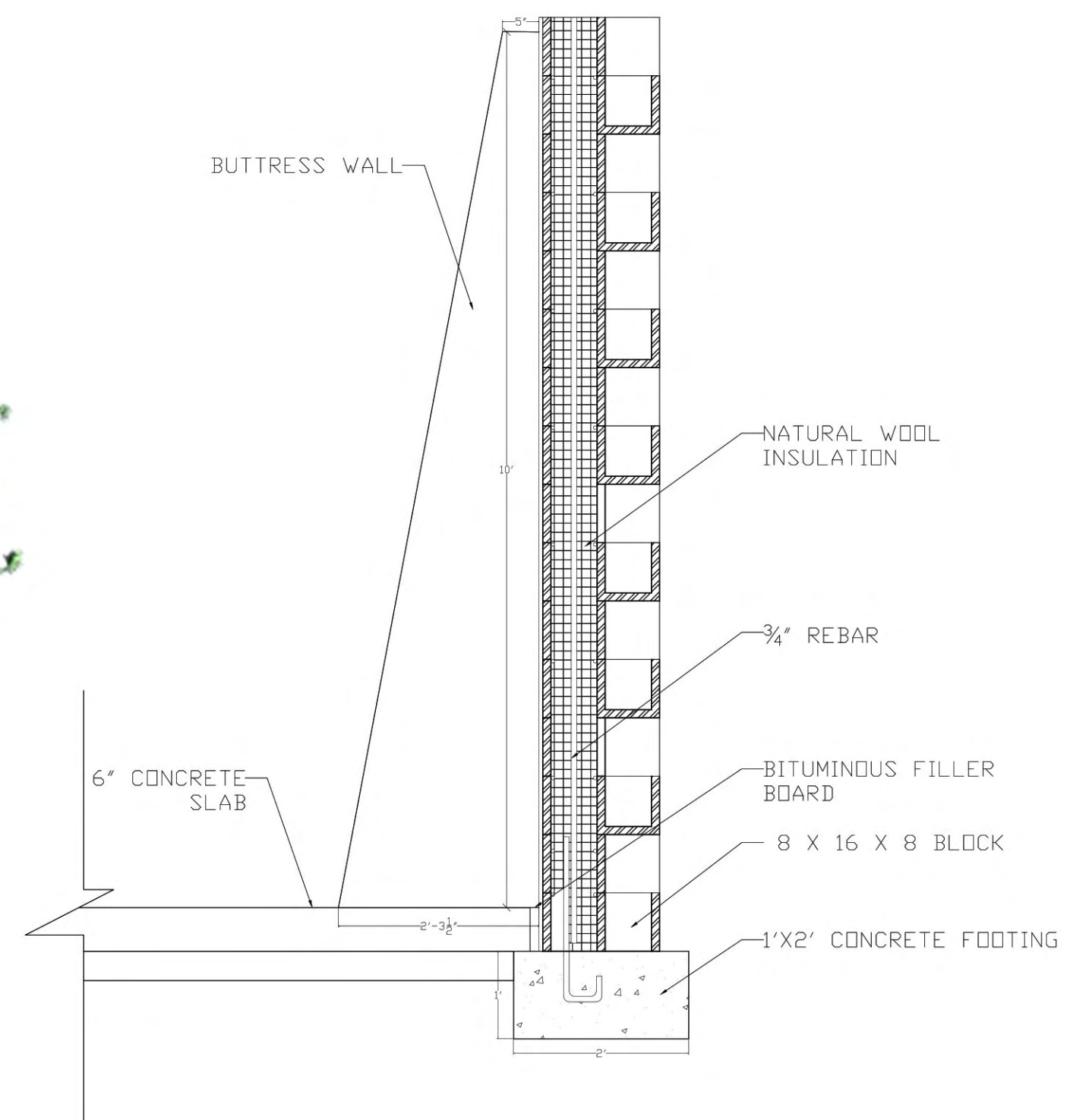
Door storage



Wall storage



Perspective view



Exterior wall section
Scale = 1:20