Building Matrix

	Traditional	Non-traditional	Prefab	Modular
				
Description	A traditional building solution will incorporate materials and construction methods that are familiar to Uganda. This building will be built completely on site.	A non-traditional building solution may call for the import of manufactured materials from other regions of Uganda and abroad. Additionally, the construction methods used may be unfamiliar to the locals.	Prefab buildings are built off site, shipped to the final location by various means and assembled on a prepared site as a kit of parts	A modular building, similar to prefab, would be designed and built off site. However, the modular building would arrive at the final destination as one unit rather than a kit of part. For example, a recycled shipping container could function as structure and enclosure.

Materials	• Stone foundation
	  • compacted earthen floor
	  • clay tile floor
	• Structure
	  • locally available wood posts
	  • load bearing clay bricks
	• Enclosure
	  • locally available wood
	  • clay bricks
	  • clay plaster
	  • thatched roof
		• Concrete foundation walls
		  • concrete floor (exposed or cladded)
		• Structure
		  • wood studs
		  • load bearing bricks
		  • other load bearing masonry units
		  • rammed earth walls
		• Enclosure
		  • brick
		  • wood siding
		  • lightweight metal siding
		  • plaster and stucco
		  • tin roof
		  • screens, modern windows
			• Concrete post foundation
			  • plastic flooring
			  • composite panels
			• Structure
			  • prefab metal beams and studs (steel or aluminum)
			  • composite wood beams and studs
			• Enclosure
			  • fiberglass panels
			  • galvanized or steel panels
			  • composite wood/plastic cladding
			  • metal roofing
			  • screens and modern windows
				• Concrete post foundation
				• Structure
				  • recycled shipping container
				• Enclosure
				  • recycled shipping container
				  • optional interior finsh (wall/floor/roof)

Advantages	• Inexpensive • Uses locally available materials. • Uses locally available labor. • Climate and site specific; tested solution. • Quick and inexpensive repairs. • Organic expansion.	• Creates a balance between the traditional and modern. • Better suited to accept services and utilities. • Creates a more controlled environment for coffee storage.	• Less intensive site preparation. • Designed and fabricated in the US, controlled process. • Easily transported, ships in a Cup to Crop truck. • Quick assembly by a small team. • Designed for optimum storage requirements. • Modularity allows for easy expansion. • A repeatable prototype for other farming regions.	• Less intensive site preparation. • Designed and fabricated off site. • Ships to the site on a Cup to Crop truck. • Needs little modification to become a usable space. • Modularity allows for easy expansion. • A repeatable prototype for other farming regions.
Dis-advantages	• Building type may not provide the optimum condition for coffee storage.	• Materials may have to be imported from other regions. • Labore may have to be imported from other regions. • More extensive site preparation. • Repairs are more expensive. • Expansion becomes more complicated.	• Will have to prove that prefab materials work well in Uganda's climate. • Likely built of foreign materials. • Repairs would require coordinating specialized labor and materials. • Vehicular access to the site may be limited. • More expensive option.	• May not provide to appropiate dimensions for the building's function. • Vehicular access to the site may be limited. • May require a crane to place the building on the site.