

Scandinavian ESG Transformative technology utilizes:

- Onsite (in-situ) mobile concrete CLC plant.
- Lightweight and modular reusable formwork.
- CLC “next generation” concrete.
- Training and on-going support.
- Uses local materials and labor.

Machine

Enables mobile, rapid, and continuous production of CLC concrete on-site.



Formwork

Reusable up to 900 times – reducing the individual carbon footprint of each house.



Cellular Lightweight Concrete (CLC)

Accredited for strength, durability, and efficiency.



Scandinavian ESG Housing Technology Offers Many Benefits:

- Better quality and structurally more sound
- Reduced labor and material costs in the construction of the “concrete core and shell”
- Increase productivity (build high-quality, resilient, and sustainable structures in as little as 3 days)
- CLC Walls offers thermal insulation (CLC concrete is cooler vs. traditional)
- Hydrophobic - Prevents molding
- Fire-resistant and soundproofing qualities
- IFC EDGE Certified – 20% reduction (energy, water, CO²)
- Promotes sustainable development
- Access to Green Financing
- Utilizes transformative technologies to construct quality, structurally sound, affordable green homes.
- Scandinavian ESG offers 99 years of life-cycle analysis.
- Preserves real estate assets (developers, banks, and homeowners)
- Provides homeowners with more cash flow to service debt.

This is what affordable, sustainable **EchoStone** housing looks like at scale

(on two continents)



Scandinavian ESG Housing System has overarching benefits beyond the core and shell works:

- 1) Electrical and plumbing first fixings are installed during the formwork operation, allowing the conduits and boxes to be installed before wall casting. In contrast, conventional block and plaster methods require the electrician and plumber to chisel the blockwork to chase the pipes, followed by extensive patching work afterward.
- 2) Build at Speed: Onsite concrete production with world-class formwork optimizes construction operations.
- 3) Build Superior: CLC Concrete creates high-quality core and shell finishes that reduce material (up to 30%) and labor costs (up to 50%).
- 4) Build Sustainable: EchoStone's technology catalyzes sustainability performance and IFC EDGE certification through energy and carbon reduction.



Cost Comparison Examples: ES Housing System vs Traditional Block Construction

Date: October 17, 2023 Client: Adom Estate Housing Project: Mataheko Drawing: Proposed Residential Building (2 bedroom), drawn by Engr. Anani, March 2023 AFN Ventures Traditional estimate based on quantities from drawing and current market rates. Adom estimate based on Adom City quantities and current market rates. EchoStone estimate based on quantities from drawing and current market rates.							\$ 11.00	
Item	Description	Traditional Building Method Estimate by AFN Ventures				ECHOSTONE CLC Concrete Excludes ES Fees	Cost Savings (Increase) ES Concrete vs Traditional	
		Quantity	Unit	unit Rate	Amount USD	Amount USD	% Change	
A	Concrete works	10.00	m ³	136.36	1,363.64	654.55	52.0%	
B	Reinforcement works	1.49	tons	1,090.91	1,628.73	1,697.41	-4.2%	
C	Formworks/Labour	133.00	m ²	8.64	1,148.64	1,800.55	-56.8%	
D	Blockwork / laying	284.00	m ²	12.73	3,614.55	2,389.27	33.9%	
E	Plastering/patching work	516.00	m ²	3.18	1,641.82	54.55	96.7%	
F	Screeding	101.00	m ²	5.45	550.91	259.09	53.0%	
G	Electrical works	1.00	item	-	-	0.00		
H	Plumbing works	1.00	item	-	-	0.00		
L	EchoStone services, consumables, mobilization, training, and equipment rental					0.00		
TOTAL ESTIMATED COST					9,948.27	6,855.41	31.1%	

Scope of Work:

- Includes superstructure walls only.
- Excludes all substructure works (foundation and slabs).
- Includes elevated slabs and structural works for roof gutter and porch.
- Excludes electrical and plumbing works.
- Excludes window, door, roofing and all finishing works not noted.