

CONTECH

CONTECH CATALOG

Converting containers to habitable spaces and breaking the boundaries of innovation

SELECTED WORK — 2012 - 2023

CONTAINERS AS BUILDING MODULES

What is a shipping container? By definition, a shipping container is a vessel that encloses a usable volume of space and thus defines the spatial boundary between the interior and the exterior. Originally, containers were thought of and used as cargo carriers alone. Now, containers have entered the world of disruptive construction as spatial modules and building blocks, embracing Container Architecture.

To ensure optimum compatibility, the dimensions of standard containers are modularly structured. The most common containers measure 20ft and 40 ft in length and 8ft in width.

Containers are conceived as singleroom modules that can form a flexible multi-room system once combined. The modular nature of containers allows for a great deal of options when preparing a build. Containers can easily be stacked with very little civil work requirements, making this type of structure very cost and time effective.

The process of crafting building containers entails embracing the principles of standardisation and efficiency and applying them to a modular unit inspired by shipping containers. The outcome is a specialised spatial module with a lightweight structure, purposefully designed exclusively for use in buildings.

In the domain of building containers, they present a distinct departure from their utilitarian freight counterparts. These containers already comply with the specific civil engineering requirements for creating building envelopes. Despite their mass production, a standardised version with optimised fitting and structural design was devised to guarantee the cost-effective manufacture of building containers.

This version has since established itself as a building module for both temporary and permanent solutions.

CONTAINER ANATOMY

In an era where construction contributes a staggering 40% of global CO2 emissions annually, the shipping container emerges as a green construction ally. These containers have a brief “sea-worthy” life of around a decade before retirement, often ending up in storage yards or scrap yards, compounding environmental concerns as hundreds of thousands are replaced each year.

UP-CYCLING

CONTECH champions upcycling, transforming end-of-life shipping containers into high-value, eco-conscious structures. Upcycling not only reduces waste but also conserves resources and curbs our carbon footprint. The containers’ modular design even allows for solar panel integration on their roofs, enhancing their eco-friendly impact.

CONTECH pioneers sustainability through upcycling, not just creating structures but also hope for a greener future.

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OPEN TO THE WORLD

The versatility and strength of shipping containers means that CONTECH has already been able to deliver ready units by road or sea to multiple destinations in Africa, and projects are underway for delivery to Europe and South America.



Kenya
Tanzania
Uganda
Zambia
Ethiopia
Senegal

01 AUTO SELECTION OFFICE

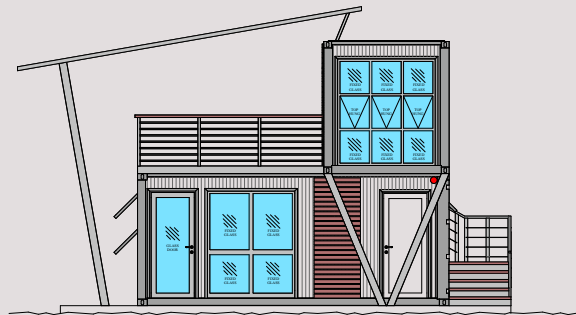
NAIROBI, KENYA

TYPE OF USE: OFFICE

NUMBER OF CONTAINERS: 2

The Auto Selection office serves as a prime example of modular construction's merits. It boasts a swift construction process, with most work completed off-site, resulting in efficiency and precision. Additionally, its mobility adds a unique dimension to its functionality, and its attractive design seamlessly integrates with its surroundings, representing the fusion of form and function.

The Auto Selection office is constructed from two 20-foot containers, with one placed perpendicular to the other and supported by robust steel pillars. A convenient access staircase is thoughtfully incorporated on one side, leading to a beautifully tiled deck area. The design also features expansive glass windows on three sides, strategically positioned to capture the warmth of both the morning and afternoon sun.





The first shipping container was developed in 1956 by Malcom McLean and Keith Tantlinger.

ROAST

BY CARNIVORE

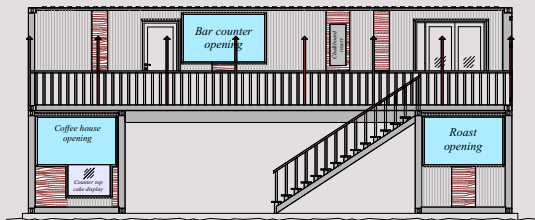
TATU CITY, KENYA

TYPE OF USE: RESTAURANT

NUMBER OF CONTAINERS: 3

Nestled at the entrance the entrance of Tatu City is Roast, a striking modular restaurant. Comprising three containers, one 40ft unit atop two 20ft counterparts, this structure offers a unique dining experience.

Accessed by a staircase, the 40ft container serves as an inviting dining area, designed with strategic lighting and a carefully selected color palette to set the mood.



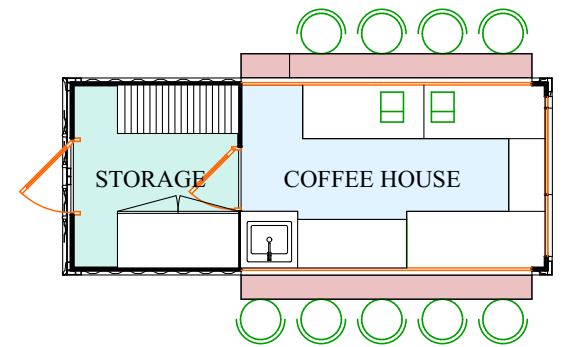




Containers are the strongest mobile or stationary in the world built to withstand typhoons, tornados, hurricanes and even earthquakes.



Outside, an overhang deck extends the space, creating a lounge area with picturesque views. Below, the two containers serve as both structural support and functional spaces — one houses a charming coffee house, while the other hosts a dynamic grill area. The open area between them provides valuable seating for guests.



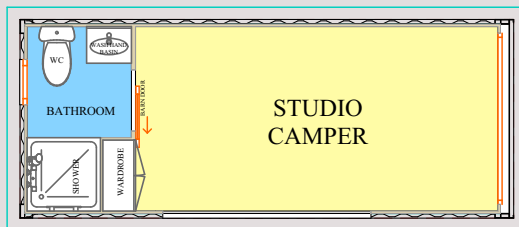
03 THE SAFARI CAMPER

NAIROBI, KENYA

TYPE OF USE: ACCOMODATION

NUMBER OF CONTAINERS: 1

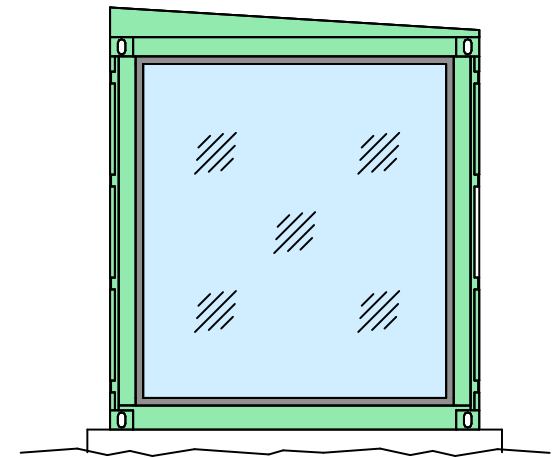
The Safari Camper is a revolutionary build, bringing decency, coziness and basic functions of a home to you in the wild. It saves you time spent pitching a tent and starting a fire and allows you more time to relax and connect. This 20ft portable container has enough space for a bed and a bathroom - providing for modern day glamping experience. With a large floor to ceiling window, you take in views from the comfort of your room lit with sufficient natural lighting. This unit was delivered to the customer as a fully off-grid unit. All functions of this unit as solar powered, creating a sustainable impact to the environment.





Shipping container homes and structures have become popular in pop culture and have been featured in movies, television shows, and design magazines. An example one might recognise?

In "The Beach" (2000), starring Leonardo DiCaprio, a group of travelers discovers an idyllic, secret beach community in Thailand. Part of the community's charm includes colorful shipping container homes that blend into the natural surroundings.



04 ECOPOD

NAIROBI, KENYA

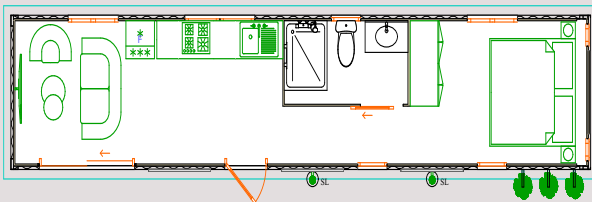
TYPE OF USE: SHOWROOM

NUMBER OF CONTAINERS: 1

For lovers of small living spaces, the Ecopod is a true gem. This structure is crafted from a 40-foot shipping container, providing an intriguing fusion of compactness and functionality.

The interior layout is designed to optimise every square foot. The space accommodates a comfortable sitting area, carefully integrated with a one-wall kitchen layout complete with cabinets.

The Ecopod boasts a full bathroom and the sleeping area accommodates a queen-size bed, ensuring that residents have all the conveniences of a larger home while embracing the minimalistic lifestyle.



A typical ISO shipping container is made from a “weathering steel”, commonly known as ‘Corten steel’. The use of Corten steel contributes to the exceptional durability of shipping containers. These containers are designed to withstand the rough handling of cargo loading and unloading, as well as long journeys across the ocean. The corrosion resistance of Corten steel ensures a long lifespan for the containers, even in challenging conditions.



05 CHUI HOUSE

MALINDI, KENYA

TYPE OF USE: RESIDENTIAL HOUSE

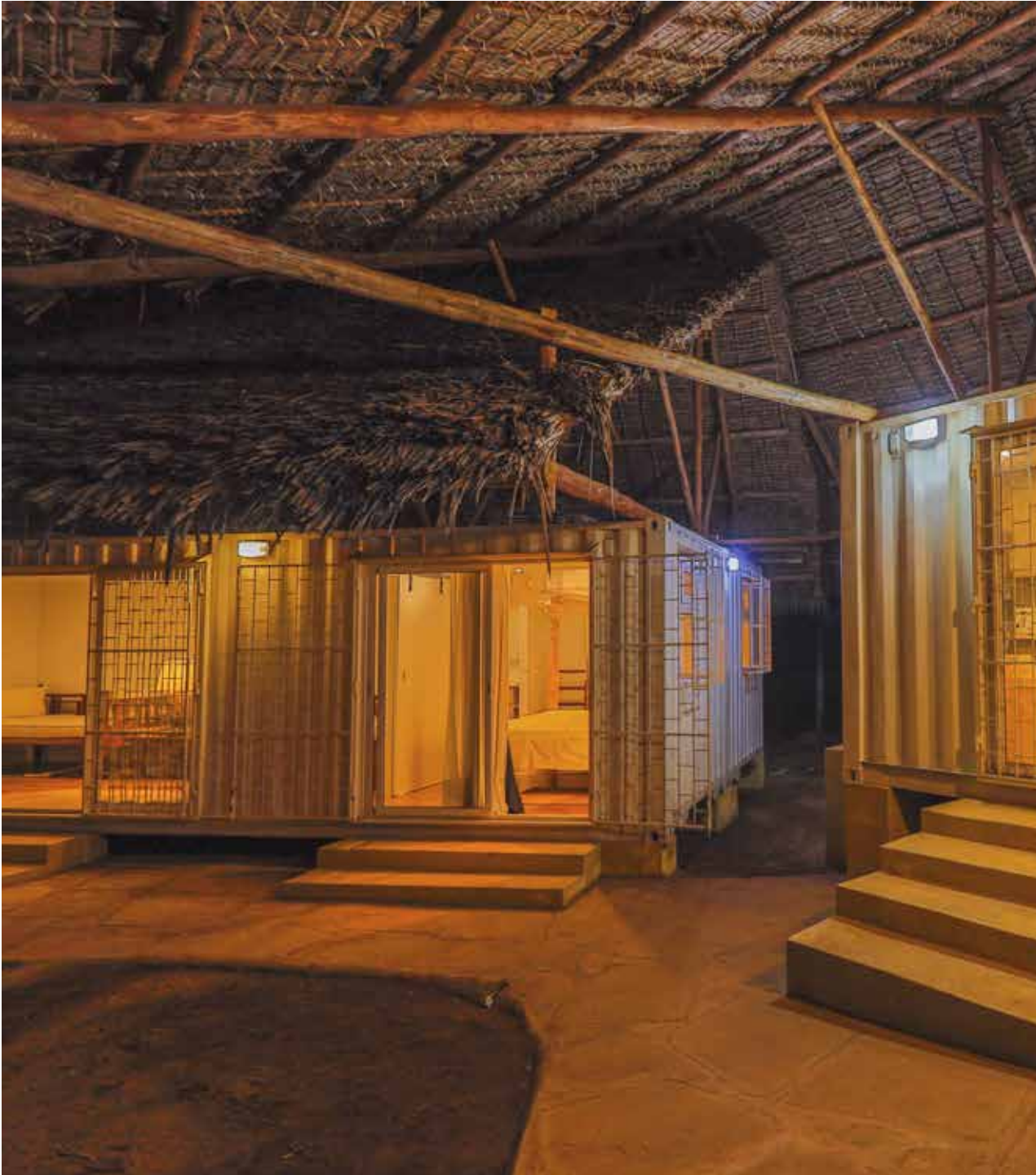
NUMBER OF CONTAINERS: 5

This architectural journey began with the assembly of two containers, initially intended for swift, temporary shelter. The homeowner, in the midst of demolishing his former residence to make way for a new vision, found himself pleasantly surprised by the outcome. These two containers, transformed into a habitable space, captivated his imagination.

Impressed by the quality and potential of this initial undertaking, the homeowner diverged from his original plan, incorporating an additional three containers into the design. The result: a fully realized home featuring two luxurious en-suite bedrooms, a spacious living area, and an elevated dining space.

Set amidst the picturesque landscape of Malindi, coastal Kenya, its foundation elevated on concrete provides a cooling contrast to the coastal heat. Topped with a distinctive makuti roof, the dwelling not only regulates temperature but also embraces the region's traditional architectural aesthetics.





“The cargo containers, with a lifespan of about 20 yrs when used for their original purpose, have an infinite life span when stationary and properly maintained.”

Adam Kalkin, American architect.

06 OPTUM HEALTH PHARMACY

TATU CITY, KENYA

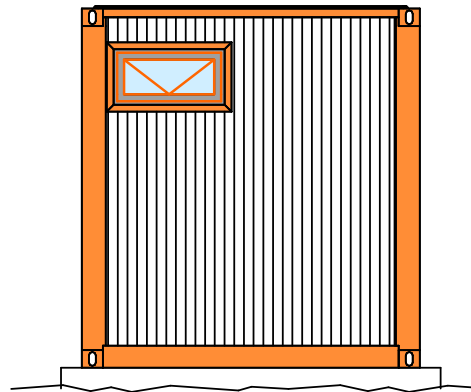
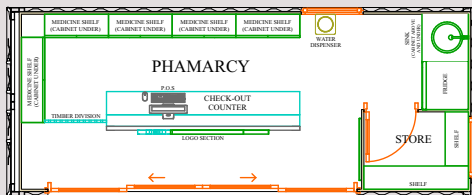
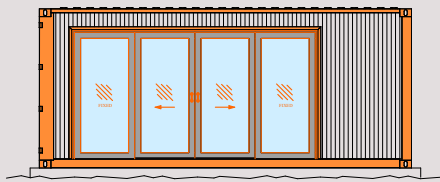
TYPE OF USE: PHARMACY

NUMBER OF CONTAINERS: 1

Architectural innovation thrives when we break free from conventional spaces and embrace the possibilities offered by versatile containers.

One such example is the Optum Pharmacy. Crafted from a single 20-foot container, this avant-garde structure defies expectations, offering an array of solutions that extend even into the healthcare sector.

Within its compact confines, the Optum Pharmacy integrates a welcoming reception area, an efficient clean-up space, and ample storage capacity. This transformation demonstrates that, regardless of their size, shipping containers possess the adaptability to address diverse needs, encapsulating a fusion of form and function.





A standard container is 8'6" high. In addition for the majority of container types there is the "High cube" that is 9'6".

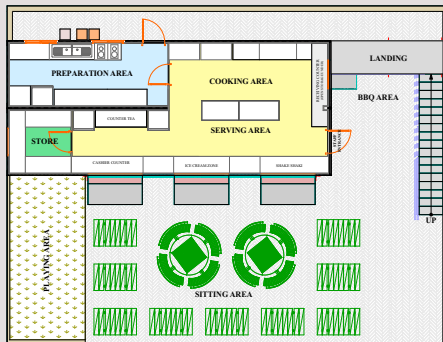
CHOP IT

NAIROBI, KENYA

TYPE OF USE: RESTAURANT

NUMBER OF CONTAINERS: 2

Chop it Gigiri, the brand's latest venture, carries forward the industrial aesthetic that has become its hallmark. This establishment, born from the fusion of two containers, reimagines space with a commitment to retaining the steel shell as integral design elements, showcased in the walls, access doors, and service point windows.



GROUND FLOOR LAYOUT

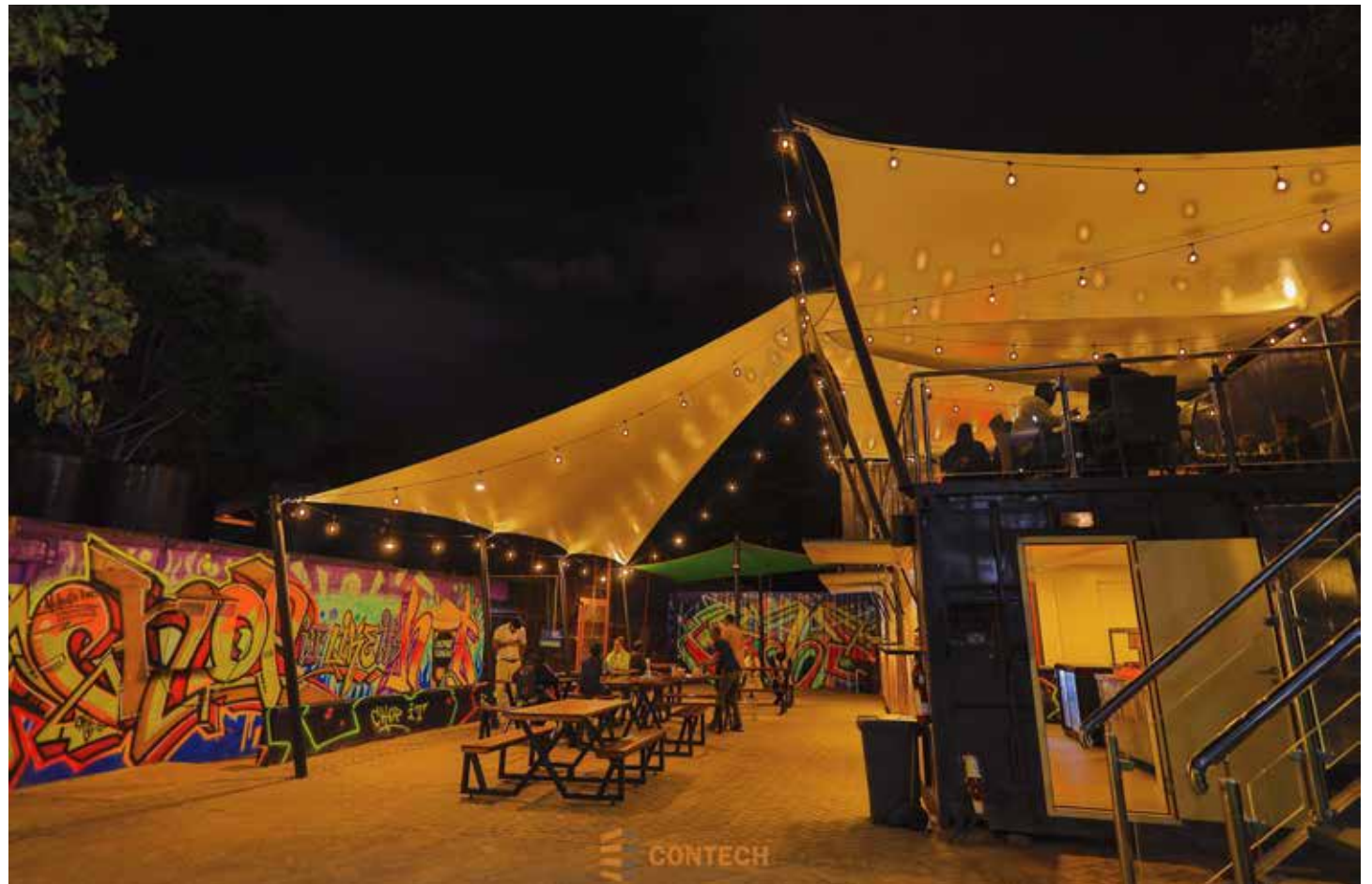


UPPER FLOOR LAYOUT





Within its compact confines, Chop it Gigiri houses a fully equipped kitchen, a dedicated service area, an office space, and a deck for guests. The deck is sheltered by canvases and supported by sturdy steel masts, contributing to the industrial feel.



The shipping container floors are made of planking or marine boards, which are very strong and resilient, does not dent, and may be easily replaced during repairs.





07 THE OL KALOU RETREAT

OL KALOU, KENYA

TYPE OF USE: AIRBNB

NUMBER OF CONTAINERS: 1

This Airbnb is a true test of living large in a small space. Located in the green county of Nyandarua, this splash of red amidst the greenery is an abstract work of art. The interior of the 40-ft container hosts two bedrooms, a kitchenette, a sitting space, and a full bathroom.

The property also has an extended wooden terrace, sheltered with iron sheets, providing a space in the shade with a view - an ideal place to unwind the hustle and bustle of daily life.





“Shipping containers are incredibly strong and durable, and they can be used as building blocks for a variety of applications. They are like the ‘Lego bricks’ of the construction world.”

- Peter DeMaria, architect and advocate of container architecture

DIGITRUK

ON THE ROAD, ZAMBIA

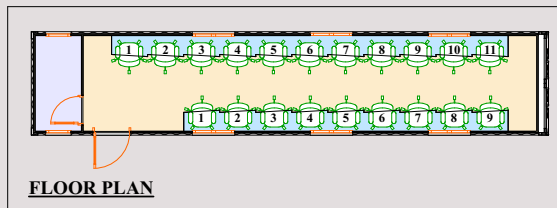
TYPE OF USE: MOBILE CLASSROOM

NUMBER OF CONTAINERS: 1

The Digitruk program is one of the most fulfilling projects CONTECH has worked on. The idea is to convert a 40ft shipping container into a classroom, fully equipped with IT equipment, to provide digital skills to remote and rural areas in Africa. This unit is also fully air conditioned and solar powered, which allows it to deliver its promise even in areas where power lines do not exist. The Digitruk generally moves on a trailer, making it one of the most productive classrooms.

The Digitruk is set to break educational glass ceilings amongst marginalized youth in remote areas.

The Digitruk program exists in Kenya, Uganda, Zambia, Senegal and Ethiopia.





BITE BOX

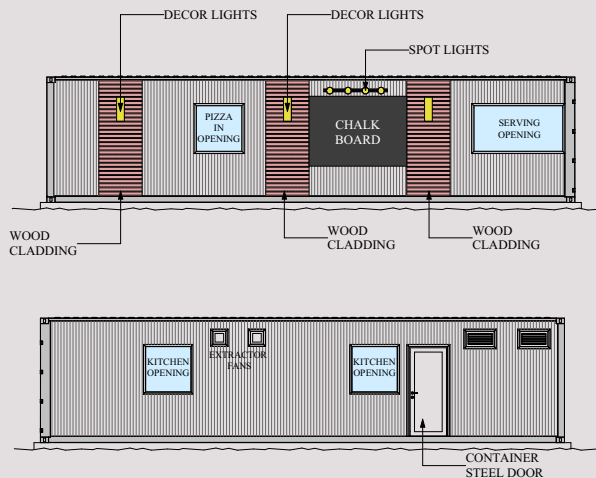
MOMBASA, KENYA

TYPE OF USE: RESTAURANT

NUMBER OF CONTAINERS: 1

Bite Box is the perfect example of how shipping containers can be used effectively for the hospitality industry. Set in the residential suburb in Nyali, Mombasa, Bite Box is a 40ft container pizzeria offering customers freshly cooked pizzas and pastas within minutes.

The container offers ample prep area as well as cold storage and fits in perfectly with the rustic clay oven built at the front, offering customers a perfect view of their food being prepared.





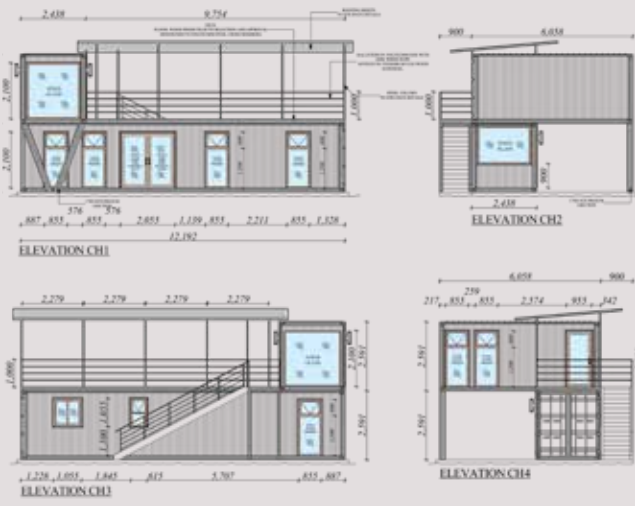
In container architecture, cuisine meets creativity. From the sizzle of street food to the allure of pop-up restaurants, shipping containers redefine the dining experience, proving that good food knows no bounds."

- Culinary Explorer

10 CONTECH SHOWROOM - NYALI

MOMBASA, KENYA
TYPE OF USE: SHOWROOM
NUMBER OF CONTAINERS: 2

This one bedroom 40 ft unit with an overhang 20ft office space, is located in the heart of Nyali to showcase our talents. We believed it was time to showcase our uniqueness in a space that allowed our customers and even the curious mind to immerse their five senses while touring our showroom. This space showcases a kitchen, living area, bedroom, bathroom and an office, The roof on the 40ft has been converted into a deck, confirming that all spaces not only within but also outside a container can be utilized to create functional areas.





11 MODULAR WAREHOUSING

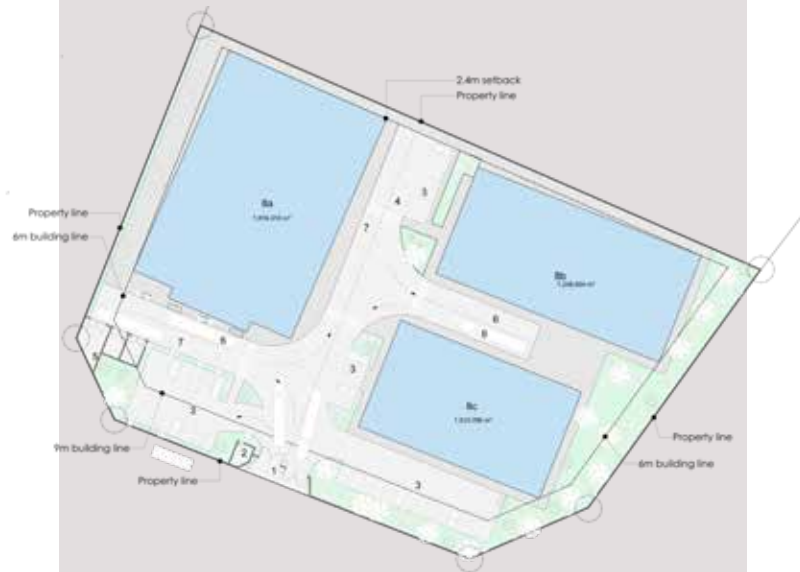
ATHI RIVER, KENYA

TYPE OF USE: WAREHOUSE

NUMBER OF CONTAINERS: 33

The versatility of shipping containers is not put to test more than in this project. CONTECH used 33 x 40ft containers to create 4,500 sqm of warehousing space for a manufacturer. This project was delivered within 7 months of breaking down, delivering on the Rapid Build promise of using our technology.

Not only do the shipping containers provide a strong foundation for the roof structure, each container provides an opportunity for the user to create customized spaces. The containers were used for office space, canteen, first aid rooms and server rooms.









12 RED CROSS IOME001 INNOVATION HUB

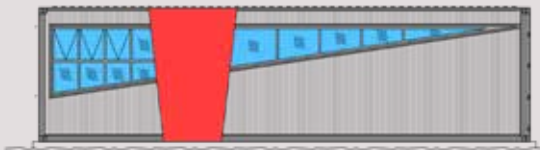
MOMBASA, KENYA

TYPE OF USE: INNOVATION HUB

NUMBER OF CONTAINERS: 5

The IOME001 Innovation Hub is a great social project by Red Cross, aiming to provide youth with an opportunity to develop technical skills at no cost. Using 5 x 40ft containers, CONTECH was able to create a modern workshop and meeting room to accommodate the training development sessions.

Many projects such as these are executed on leased land, so the ability to move and redeploy the same build at an alternative facility provides much needed safety for organizations.





In times of crisis, containers become a blueprint for resilience. They swiftly transform into shelters, clinics, and schools, demonstrating the power of adaptability in addressing urgent human needs.”

- Disaster Relief Advocate

USING CONTAINER ARCHITECTURE

“Shipping containers are the quintessential symbol of commerce and product distribution around the world. They represent global mobility and our capacity to move anything from anywhere. It is ironic, that they are increasingly being used for architectural installations, forming more static temporary and permanent structures.”

- Aidan Hart, Director Inhouse Brand Architects.

Building a contemporary project, be it residential or commercial, is on millions of bucket lists. It offers control, fulfillment, and the potential for generational financial security. Finding your dream project is thrilling yet demanding. You seek a futuristic structure that aligns with your style, offers efficiency, longevity, and affordability. Traditional building methods can be costly. That's where containers shine!

Originally designed for cargo, containers find new life in accommodation. Container architecture emerged unintentionally from unsustainable shipping practices. Despite seeming unconventional, container homes are the future, providing a unique and efficient option.

7 X WHY CONTAINER HABITATS

Cost-effective

Due to the abundance of unused units sitting idle in depots, containers are often discarded after a single use. Purchasing a container is more economical than shipping it back empty. They offer affordability, ample space, materials, and functionality, making them a budget-friendly alternative to traditional building materials, with cost-effective modification options.

Fast to build

Contrary to traditional homes, which typically take years in terms of time, tons of money, and a great deal of manpower to construct, container homes can be completed in as little as four weeks. Brick-and-mortar construction is fraught with variables that may halt the project. Shipping containers afford designers and homeowners greater control over the project. The fundamental framework requires only a few materials and adjustments to align with personal taste and requirements, such as insulation and interior finishing.

They are durable

Shipping containers, constructed to withstand extreme weather and harsh environments, are built from resilient 14-gauge steel. This robustness ensures their durability, especially when securely anchored. Their adaptability shines when it comes to relocation, as their stackable framework allows for versatility. Whether you're transporting them to a new location or simply changing your mind

about your home's placement, their sturdy nature permits hassle-free movement. You can effortlessly crane them into position at the building site, and when needed, temporary installations can be swiftly removed.

Creative freedom

Shipping containers unlock boundless creative possibilities. They can be cut, stacked, lifted, and tilted to your liking. With their distinctive textured corrugated sides and roofs, they infuse personality into structures. As modular units, their size and shape offer a predictable canvas for designers to play with, much like building blocks. The potential is limitless. Containers represent the future for homeowners or entrepreneurs with imaginative spirits, those ready to depart from traditional spaces in favour of quirky and avant-garde structures.

Energy efficient

Container-made buildings offer superior energy efficiency when guided by informed decisions. Their compact size translates to substantial reductions in heating and cooling expenses. By implementing energy-efficient appliances and off-grid systems like solar panels, harnessing natural light through strategic layouts, and capitalising on building orientation, you can significantly cut energy consumption. Container structures, adaptable to various angles, enable year-round natural ventilation, further enhancing their eco-friendly appeal.

Sustainability

Modern shipping containers provide a sustainable alternative to traditional construction methods, reducing the need for new materials. By repurposing and upcycling the steel from unused containers, we align with the principles of the circular economy, designing for reuse after their initial purpose. By making thoughtful choices during the building process, you not only limit your carbon footprint but also enjoy the perks of a customized shipping container project.

Pop-up and plug-in architecture

Pop-up and plug-in architecture deviate from the conventional notion of static or "permanent" structures, favouring the creation of temporary solutions ideal for events. Shipping containers, owing to their portability and ease of installation, seamlessly align with these innovative concepts. Imagine the challenges of relocating to a different area or even a new state, necessitating the search for an entirely new residence. Containers empower you to construct structures that can be disassembled and moved to different locations while remaining intact.

This flexibility enables you to take your home with you, eliminating the need for repeated transitions and the associated disruptions whenever circumstances change.

Fedha Plaza, Mpaka Road
Nairobi, Kenya

Along Mombasa - Nairobi Highway
Mombasa, Kenya

Links Road, Nyali
Mombasa, Kenya