fidelra.africa@fidelra.ai
fidelra.ai
linkedin.com/company/fidelra

NAIROBI CITY TWIN / HOUSING

Housing

Domain Guide

Read dwelling characteristics, tenure and rental context alongside the household and ward references in each record.

City	Nairobi
Coverage	Public sample available
List price	$5,995 USD - standalone domain
Guide edition	Striped Donkey V5.89 - 7 September 2026

Use this guide

Read the documented coverage and limitations alongside the published sample and release evidence. Model counts and sample distributions describe their stated source and period. The final accepted order specifies licensed scope, usage rights, duration and delivery.

Useful questions

- Compare housing and tenure types
- Inspect dwelling size and monthly rent
- Review tenancy timing and household context

Scope and limitations

Nairobi's generated housing stock remains materially smaller than its population scale would imply. The resulting per-capita unit ratio is a known calibration gap (certification check), disclosed here rather than hidden behind the occupancy metric.

Kenya's own HousingTypeCatalog carries eight real Kenyan dwelling-form terms (Bungalow, Maisonette, Apartment, Bedsitter, Single Room, Townhouse, Mansionette, Informal Structure) - but Kenya's model deliberately leaves every HousingUnit field NULL. H11 correctly reports N/A rather than a false PASS or FAIL.

Health's TB risk coupling reads HousingUnit against household size directly - there is no separate, named "crowding index" field or certified band. CROWDING INDEX - NOT YET MODELED as its own metric, disclosed rather than invented.

Housing chronology and linkage reconciliation are validated before release. The public site reports certification outcomes rather than the internal repair sequence or scheduling mechanism.

Inside this guide

01 How Housing fits the City Twin.

02 Known and possible relationships.

03 More than an address.

04 Where people live changes as their lives change.

05 Every city houses its population differently.

06 Housing evidence becomes residential relationships.

07 From a household code to a real dwelling.

08 Does the synthetic housing system resemble the city?

09 Housing data is uneven because cities are uneven.

10 From household formation to a place in the city.

01 How Housing fits the City Twin.

FCTE models housing as the relationship between households , dwellings and place - connecting synthetic citizens to the homes they occupy, and preserving how that relationship changes through time. A household isn't generated once and left in one house forever: Tenancy rows open and close, rent gets paid and sometimes missed, inspections pass or fail, and - where the household itself dissolves - the housing record closes out too.

Housing type, tenure, occupancy and applicable residential conditions exist inside the same City Twin™ as households , land and construction - graduated to the shared engine Core on 2026-07-17, the sixth domain to graduate after demographics, health, land, hr and construction.

Nairobi City Twin™ · 1940-2026

Supporting links

households

02 Known and possible relationships.

Connections follow the published domain scope. Optional, contextual and planned relationships retain their stated limits below.

Domain or context	Relationship and published scope
Households	Tenancy (one open tenancy per currently-housed household)
Construction's Project	HousingUnit (documented relationship, both graduated Core domains)
Land's Parcel	HousingUnit (documented relationship; ~30% of Nairobi units link to a real parcel)
Health	housing crowding context can inform respiratory-risk analysis; exact downstream weights are controlled.
Housing	affordable-housing schemes can be analyzed against area and certification check context; exact linkage logic is controlled
Land	TitleStatus / IsServiced (informal housing correlates with informal land tenure, not a direct relationship-enforced rule)

Supporting links

Households

Land

Water

Health

Construction

03 More than an address.

FCTE Housing represents the dwelling a household occupies, under what tenure, in what condition, and how that relationship changes through time - one longitudinal tenancy span rather than one static address per household.

Synthetic housing-unit context represents dwelling form, location, capacity and construction-era attributes without publishing physical field layouts.

Two deliberately separate axes are modeled: EstateType captures structural/estate character (for example HIGH-RISE, GATED and INFORMAL-UPGRADE), while HousingType captures dwelling form such as bungalow, maisonette, apartment, bedsitter, single room and townhouse.

Occupancy and tenure connect households to housing units through time across rental, owner, family, social, cooperative and tenant-purchase contexts.

Inspection context represents structural, fire, sanitation, electrical, planning and routine checks with governed outcomes and a risk signal.

historical housing index perturbs generation against real historical events (Kenya's Rent Restriction Act, Affordable Housing Programme, Housing Levy); Eviction/RentPayment preserve chronology across repairs.

Housing can be analyzed alongside Construction and Land through shared project, parcel and geography context. The physical key layout is controlled.

Synthetic by design: FCTE housing units and occupancy relationships do not represent the residences of real people. They are generated from real, cited housing, tenure and dwelling-form evidence - not sampled from any real property register.

Households, Housing, Land and Construction are four separate real questions about the same physical place - not four names for the same table. A dwelling can change tenant, tenure or condition without its parcel or its construction history ever changing.

Domain	Core Question	Key Objects	Anchor Example
Households	Who lives together?	Household, HouseholdMember	Household HH000350833
Housing	Where do they live, under what tenure?	HousingUnit, Tenancy, Inspection	Housing Unit NRB-HU/0048102
Land	What sits beneath it?	Parcel, TitleStatus, OwnershipHistory	Parcel #29182
Construction	How did it get built?	Project, BuildingPermit, SiteInspection	Project #7192

Supporting links

Households

Land

04 Where people live changes as their lives change.

Household 1763681, Nairobi. Five real, currently-live Tenancy rows on the same HousingUnitId (158866), 1985-2019, each starting the day the previous one ended - no gaps, no overlaps.

The first real, dated Tenancy row on this unit.

A single tenancy spanning nearly 29 years - the same household, the same unit.

Tenure type changed; the household and unit did not.

A brief social-tenure spell, one year.

Her current, live tenancy - the fifth real row on the same HousingUnitId, chronology-checked by H14/H16 with 0 violations.

Explore a Real Housing Record →

Supporting links

Explore a Real Housing Record →

05 Every city houses its population differently.

Nairobi's EstateType conflates structural form and development character, weighted by ward-type context (certification check) - CBD wards skew MIXED-USE/HIGH-RISE, high-density wards skew INFORMAL-UPGRADE, low-density wards skew GATED.

FCTE represents formal and informal housing separately where city evidence supports it. Informal-housing propensity varies by area-level planning, density and informality context rather than using one flat citywide constant. A shared formality classification keeps downstream analyses consistent. Exact calibration weights, bounds and transformations are intentionally not published.

Housing Type	Expected Share
FACE-ME-I-FACE-YOU	28.0% - 42.0%
SELF-CONTAINED	22.0% - 35.0%
BUNGALOW	8.0% - 18.0%
FLAT	8.0% - 18.0%
TENEMENT	5.0% - 15.0%
DUPLEX	3.0% - 10.0%
SHANTY	3.0% - 10.0%
MANSION	0.5% - 3.0%

Ownership Status	Expected Share
RENTED	62.0% - 78.0%
OWNER-OCCUPIED	18.0% - 30.0%
FAMILY-OWNED	3.0% - 10.0%
EMPLOYER-PROVIDED	2.0% - 8.0%

06 Housing evidence becomes residential relationships.

Post-generation integrity processes reconcile housing links, overlaps and chronology. Certification verifies the outcomes; exact repair sequence, matching rules and transaction logic are controlled.

Published housing, tenure, occupancy and dwelling-stock evidence anchors city-level distributions and certification targets.

Occupancy rate (certification check, occupied ÷ total units); tenure-mix direction (certification check, rental vs. owner share).

Tenure mix, occupancy, dwelling types and housing lifecycle patterns are calibrated to cited city evidence and release-level realism checks. Exact assignment weights and transition parameters remain controlled.

Individual synthetic assignments are generated under controlled domain rules. Exact sampling, assignment order and parameterization are not published.

View Housing Generation Methodology →

Per-ward calibration inputs, Nairobi.

Real, dated policy events that shift certification check modeling year by year.

Structural (H01-H16) and realism (certification check-R05) batteries run live in Nairobi.

Open Housing Source Catalogue →

Supporting links

View Housing Generation Methodology →

Open Housing Source Catalogue →

07 From a household code to a real dwelling.

Representative synthetic rows from the public housing model - categories and value bands illustrate the release without publishing the internal data structures. Explore the release-backed analysis-ready examples in City Twin™ for current data.

Explore Housing Data →

Public entity family	Represents	Disclosure boundary
Housing unit context	Dwelling form, area and availability context	Physical unit fields and identifiers are controlled
Occupancy & tenure	Household occupancy and tenure through time	Exact occupancy fields and constraints are controlled
Payment & transition context	Rent, eviction and occupancy-change context	Exact payment/transition mechanics are controlled
Inspection & project context	Quality, construction and affordable-housing context	Physical cross-domain keys are controlled

UnitCode	EstateType	TenureType	MonthlyRentLocal	Status
NRB-HU/0391822	MID-RISE	RENTAL_LONG	18,400	Current
NRB-HU/0104417	AFFORDABLE	OWNER	-	Current

Supporting links

City Twin™

Explore Housing Data →

08 Does the synthetic housing system resemble the city?

Structural certification passes fully in Nairobi. Realism certification passes 4 of 5 checks - the fifth is a real, disclosed WARN, not hidden.

Open Housing Realism Report →

The full H01-H16 structural battery plus the 5-check certification check-R05 realism battery run live against Nairobi release. Kenya legitimately marks H11 (HousingType diversity) N/A rather than forcing a false PASS - disclosed, not hidden. A large-scale chronology defect (H14, tenancies starting before their own housing unit existed) was found, root-caused and fixed live 2026-08-06 - see the Temporal Integrity Audit for the full writeup. H16 (below) remains open.

16 structural checks (H01-H16) run live in Nairobi: 16/16 PASS.

Explore Every Housing Check →

• H03 - local rent-payment amount all > 0: 0 violations, Nairobi

• H08 - every ward with a citizen has ≥1 housing unit: PASS, Nairobi

• H09 - AffordableHousingProject unit-count ordering (Occupied ≤ Allocated ≤ Target): 0 violations

• H11 - HousingType diversity: N/A on Kenya (deliberately left unpopulated)

• H04 - tenancy start date within [SeedEpoch, NowDate]: 0 violations

• Chronology - unit, tenancy, inspection and payment ordering: 0 violations

• H06 - eviction-notice date ≥ tenancy start date: 0 violations

• certification check - tenure-mix direction: PASS, Nairobi (KNBS-cited)

• certification check / R04 - eviction rate & inspection-outcome diversity: PASS, Nairobi

Supporting links

Open Housing Realism Report →

Temporal Integrity Audit

Explore Every Housing Check →

09 Housing data is uneven because cities are uneven.

Nairobi's generated housing stock remains materially smaller than its population scale would imply. The resulting per-capita unit ratio is a known calibration gap (certification check), disclosed here rather than hidden behind the occupancy metric.

Kenya's own HousingTypeCatalog carries eight real Kenyan dwelling-form terms (Bungalow, Maisonette, Apartment, Bedsitter, Single Room, Townhouse, Mansionette, Informal Structure) - but Kenya's model deliberately leaves every HousingUnit field NULL. H11 correctly reports N/A rather than a false PASS or FAIL.

Health's TB risk coupling reads HousingUnit against household size directly - there is no separate, named "crowding index" field or certified band. CROWDING INDEX - NOT YET MODELED as its own metric, disclosed rather than invented.

Housing chronology and linkage reconciliation are validated before release. The public site reports certification outcomes rather than the internal repair sequence or scheduling mechanism.

Kenya's historical housing index is perturbed by three real, dated, named events (Rent Restriction Act 1959, the Affordable Housing Programme/Big Four Agenda 2017, the Housing Levy 2023-2024).

Open tenancy records belonging to households with no surviving members were found on both City Twins. The existing cleanup routine has been wired into the standard generation workflow so it now runs on every cycle, rather than requiring a manual step.

No synthetic housing unit corresponds to a real address, building or property. Every unit, tenancy and inspection on this page is statistically generated, not drawn from any real land or property registry.

View All Housing Limitations →

Supporting links

View All Housing Limitations →

10 From household formation to a place in the city.

Formed by one of the seven Household Lifecycle mechanisms - Housing waits for it, doesn't create it.

A housing occupancy relationship opens in the same area, carrying tenure and rent context through time.

The household's own composition changes; Housing reacts only when the household itself dissolves.

Multiple Tenancy rows per unit stay queryable, ordering enforced by reconciliation processes and H14.

Available as Standalone Domain · Multi-Domain Bundle · Full City Twin™

Supporting links

Explore This Record →

View the analysis example →

See the Evidence →

Review licensing & delivery details →

View Pricing & Licensing →

Browse Housing Data →

Explore Multi-Domain Access →