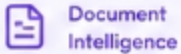


TerraScope AI

AI Property Feasibility Platform

From zoning PDFs to concept, cost, and feasibility report.



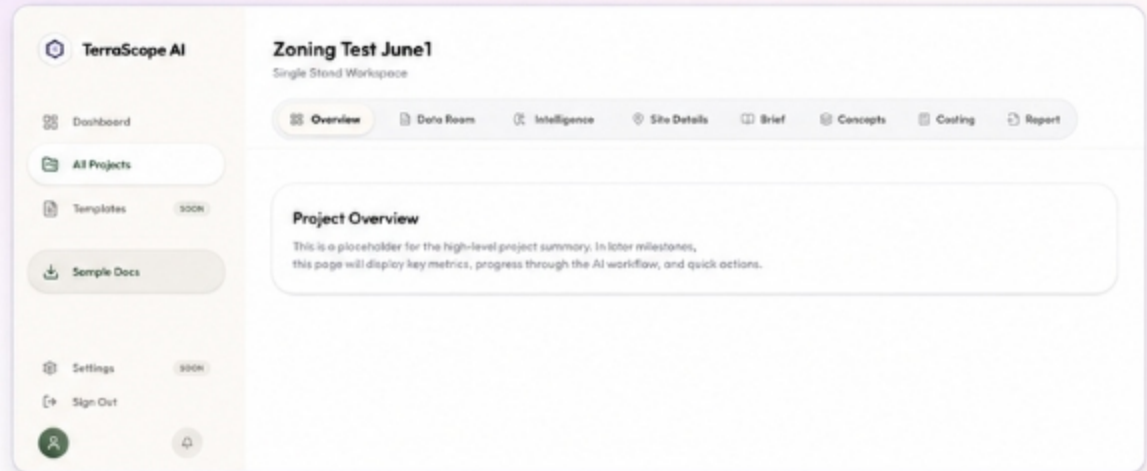
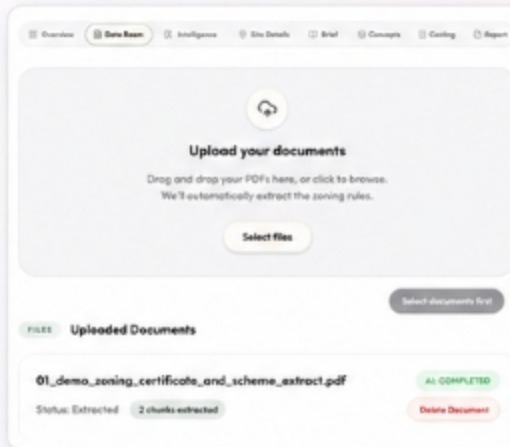
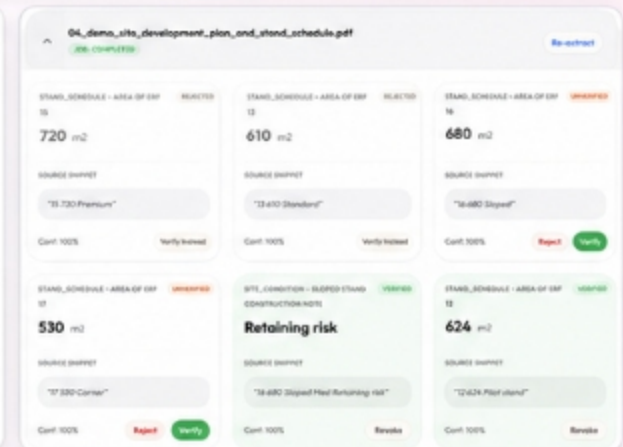
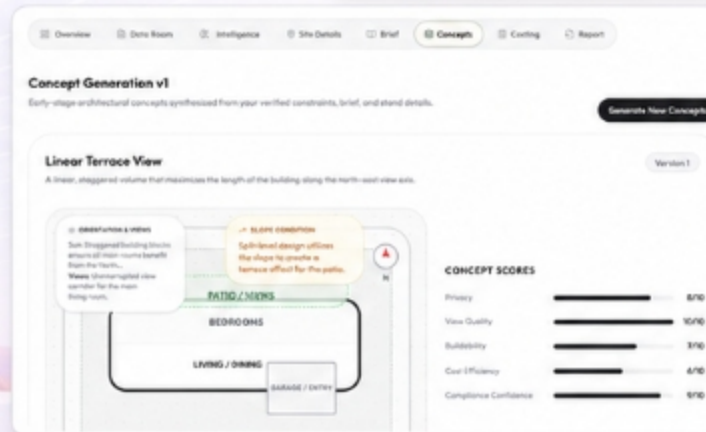
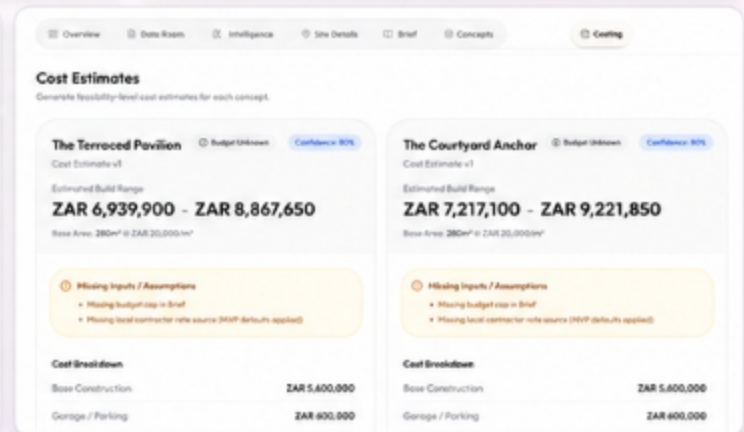
Document
Intelligence



Concept
Engine



Deterministic
Costing



Next.js



FastAPI



Supabase



RAG Pipeline



A 5-Step Feasibility Workflow

Upload. Verify. Brief. Concept. Cost.

Dashboard

All Projects

Templates SOON

Sample Docs

Settings SOON

Sign Out

Zoning Test June1

Single Stand Workspace

Overview

Data Room

Intelligence

Site Details

Brief

Concepts

Costing

Report

Project Overview

This is a placeholder for the high-level project summary. In later milestones, this page will display key metrics, progress through the AI workflow, and quick actions.

Upload your documents
Drag and drop your PDFs here, or click to browse.
We'll automatically extract the zoning rules.

Select files

FILES

Uploaded Documents

01_demo_zoning_extract.pdf

Zoning Ordinance • 2.4 MB

AI COMPLETED

01_demo_site_development_plan_and_land_schedule.pdf

AI COMPLETED

<div>ZONING SUMMARY • AREA OF SITE</div> <div>720 m²</div> <div>SOURCE SUMMARY</div> <div>"15.72 (Business)"</div> <div>COST 100% Verify Extracted</div>	<div>STAND_SCHEDULE • AREA OF SITE</div> <div>610 m²</div> <div>SOURCE SUMMARY</div> <div>"7.82% (Store)"</div> <div>COST 100% Verify Extracted</div>	<div>STAND_SCHEDULE • AREA OF SITE</div> <div>680 m²</div> <div>SOURCE SUMMARY</div> <div>"7.46% (Store)"</div> <div>COST 100% Report Verify</div>
<div>ZONING_SCHEDULE • AREA OF SITE</div> <div>530 m²</div> <div>SOURCE SUMMARY</div> <div>7.72% (Store)</div> <div>COST 100% Report Verify</div>	<div>SITE_CONDITION • BOUNDARIES</div> <div>Retaining risk</div> <div>7.44% (Store/Mixed Restrictive)</div> <div>COST 100% Review</div>	<div>STAND_SCHEDULE • AREA OF SITE</div> <div>624 m²</div> <div>SOURCE SUMMARY</div> <div>7.24% (Mix Reg)</div> <div>COST 100% Review</div>

```
graph LR; 1[1 Upload Docs] -.-> 2[2 Extract Rules]; 2 -.-> 3[3 Define Brief]; 3 -.-> 4[4 Generate Concepts]; 4 -.-> 5[5 Estimate Cost];
```

The diagram illustrates a 5-step feasibility workflow:

- 1 Upload Docs**: Represented by a PDF icon.
- 2 Extract Rules**: Represented by a magnifying glass over a document icon.
- 3 Define Brief**: Represented by a clipboard with a checkmark icon.
- 4 Generate Concepts**: Represented by a 3D cube icon.
- 5 Estimate Cost**: Represented by a calculator icon.

Supporting features are shown below the workflow:

- PDF Intelligence**: Represented by a brain icon.
- Human Verification**: Represented by a green checkmark icon.
- Client-Ready Output**: Represented by a star icon.

02



From PDFs to Verified Rules

Upload documents. Review extracted constraints.

The screenshot illustrates the workflow in TerraScope AI. On the left, the 'Zoning Test June1' workspace shows the 'Data Room' tab with an 'Upload your documents' prompt. Below, the 'Uploaded Documents' section lists a file '01_demo_zoning_certificate_and_scheme_extract.pdf' with a status of 'AI COMPLETED'. A purple arrow points to the right, where the same workspace is shown with the 'Intelligence' tab active. This view displays a grid of extracted rules, each with a status (REJECTED, UNVERIFIED, or VERIFIED) and a 'Verify' button. The rules include area constraints (e.g., 720 m2, 610 m2, 680 m2, 530 m2, 624 m2, 585 m2) and a 'Retaining risk' rule. Each rule also shows a 'Source Snippet' and a 'Conf: 100%' value.



Coverage



Setbacks



Height Limits



Site Risks



Human review keeps rule extraction reliable.



Verified Site Data Meets the Brief

The form stays grounded in real constraints.



Stand Context



Room Program



TerraScope AI



Dashboard



AI Projects



Templates SOON



Sample Docs



Settings SOON



Sign Out





Rooms & Spaces

Bedrooms

4

Bathrooms

3

Garage Bays

2

☒ Kitchen & Scullery

☐ Guest Room

☒ Outdoor Patio

☒ Living & Dining

☐ Staff Quarters

☒ Braai Area

☒ Study / Office

☒ Storage Room

☐ Swimming Pool

Garden & Landscaping Requirements

Low-maintenance garden with outdoor seating connected to the main living area.

Design Preferences

Architectural Style

Estate guideline compliant

Roof Preference

Estate guideline compliant

Preferred Materials / Finishes

Smooth plaster, natural stone, timber accents, neutral exterior palette.

Priorities

Site & Stand

Area

624 m²

Topography

Moderate

Orientation

North-East

Access

South

Constraints

Boundary

1 m

Boundary

2 m

Coverage

50 %

Garage

5.2 m

Landscape

30 %

Setback

4.5 m

Setback

3.0 m

Setback

2.0 m

Site Condition

Retaining risk

Stand Schedule

488 m²

Stand Schedule

624 m²

Design Preferences



Design Preferences

Constraint Awareness



Constraint Awareness

 Rules Verified



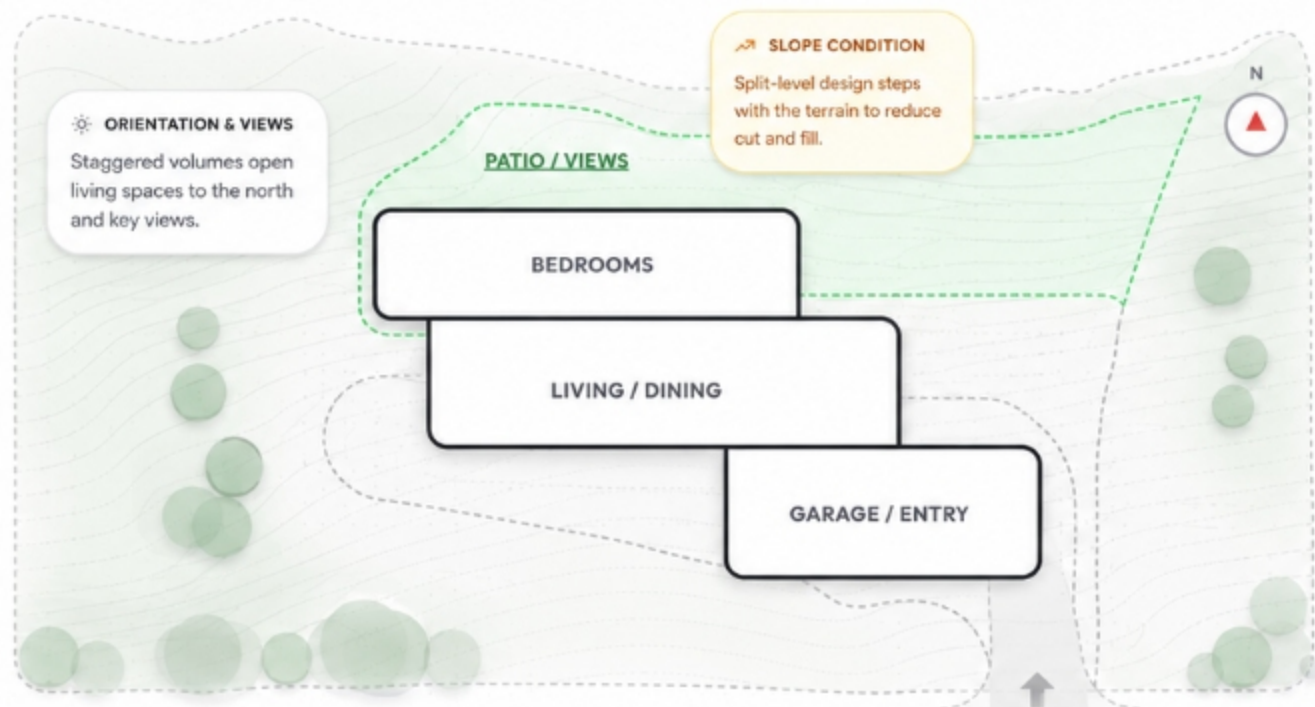
Site-Aware Concepts

Not generic floor plans.

Concept Generation v1

Early-stage architectural concepts from your verified constraints and site data.

Version 1



Concept Scores

Privacy	<div><div></div></div>	8/10
Views	<div><div></div></div>	10/10
Buildability	<div><div></div></div>	7/10
Cost	<div><div></div></div>	6/10
Compliance	<div><div></div></div>	9/10



Responds to slope



Preserves views



Uses verified rules

Deterministic Costing

AI explains the result. It does not guess the math.

Overview

Data Room

Intelligence

Site Details

Brief

Concepts

Costing

Report

Cost Estimates

Generate feasibility-level cost estimates for each concept.

The Terraced Pavilion

Cost Estimate v1

Estimated Build Range

ZAR 6,939,900 - ZAR 8,867,650

Base Area: 280m² @ ZAR 20,000/m²

Missing Inputs / Assumptions

- Missing budget cap in Brief
- Missing local contractor rate source (MVP defaults applied)

Cost Breakdown

Base Construction	ZAR 5,600,000
Garage / Parking	ZAR 600,000

The Courtyard Anchor

Cost Estimate v1

Estimated Build Range

ZAR 7,217,100 - ZAR 9,221,850

Base Area: 280m² @ ZAR 20,000/m²

Missing Inputs / Assumptions

- Missing budget cap in Brief
- Missing local contractor rate source (MVP defaults applied)

Cost Breakdown

Base Construction	ZAR 5,600,000
Garage / Parking	ZAR 600,000

Base Area

Rate / m²

Risk Multipliers

Final Range

✓

Clear Assumptions

☆

Confidence Score

📄

Feasibility Pack

06

Architecture & Stack

A split-stack product built for heavy AI workflows.



1. Stack

Next.js

Tailwind

FastAPI

Supabase

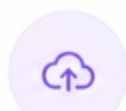
PostgreSQL

pgvector

Gemini

Vercel

2. AI Workflow



Upload



Chunk



Retrieve



Map JSON



Generate

3. Data & Infrastructure

Table: AIJob

☐	id <small>uuid</small>	projectId <small>uuid</small>	type <small>text</small>	status <small>text</small>
☐	163feace-652c-4e89-b6bd-80caa64dcbe8	9f3d73eb-ab32-4a2a-85d4-21790...	intelligence_extraction	completed
☐	44814c46-fbdc-4da7-8e02-7498499fadb6	9f3d73eb-ab32-4a2a-85d4-21790...	extraction	completed
☐	55d623f1-2bb0-4c9a-a1ff-987a2f4530c0	9f3d73eb-ab32-4a2a-85d4-21790...	extraction	completed
☐	5f819cc1-14cc-4703-962c-b95915671728	5de358ca-7c6e-4721-af6e-cd9d5...	intelligence_extraction	completed
☐	998aa754-2776-4521-9df7-b695d99e55ed	9f3d73eb-ab32-4a2a-85d4-21790...	intelligence_extraction	failed



Faster feasibility



Human verification



Client-ready output