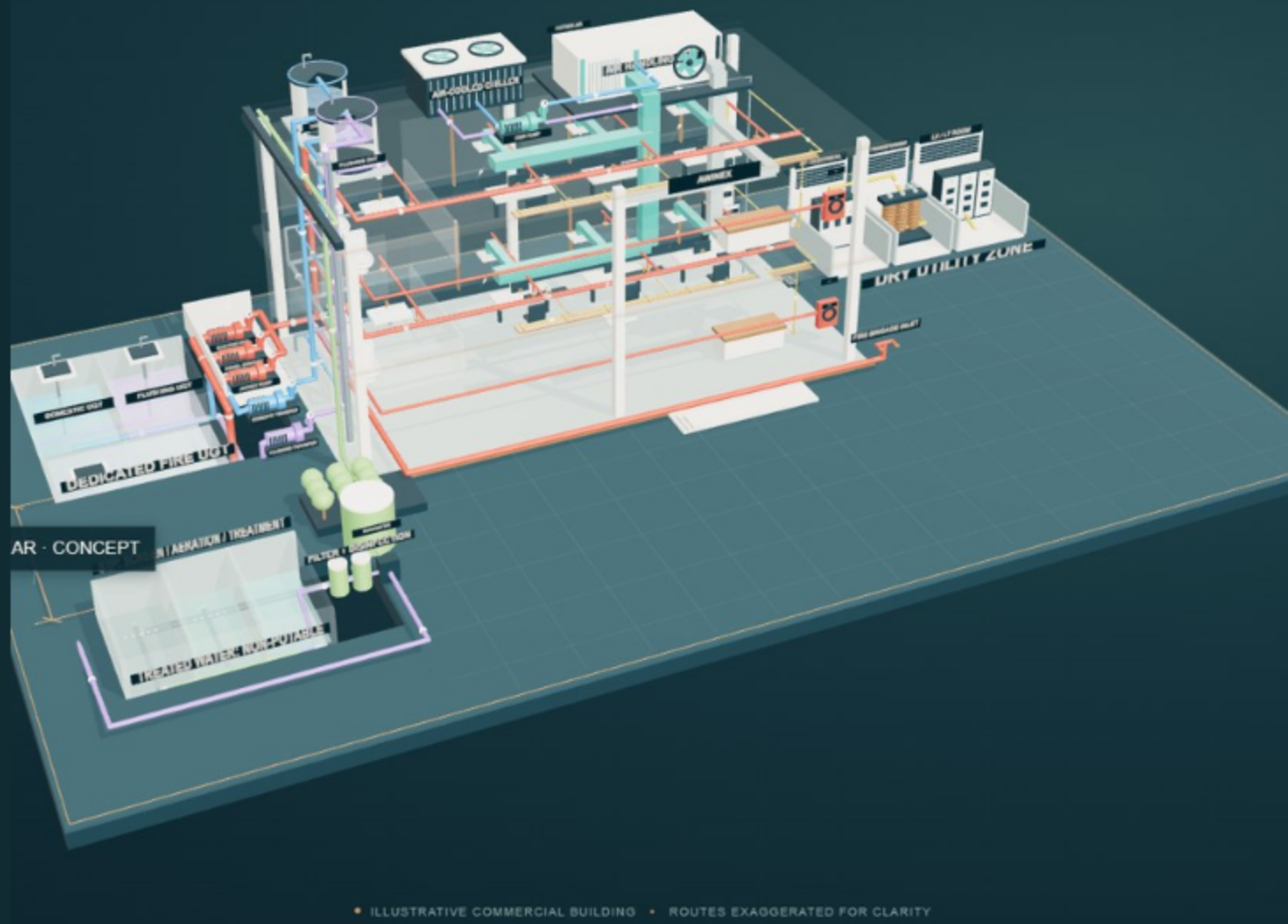
Building systems. Designed together.

MEP engineering and environmental support

Company profile

Ulwe, Navi Mumbai



Engineering scope

Practical design for the systems people use every day.

01 **HVAC**

Cooling, ventilation and exhaust

02 **Electrical**

Power distribution and lighting

03 **Plumbing**

Water supply, drainage and sanitation

04 **Fire fighting**

Fire-water systems and equipment planning

05 **MEP coordination**

Service routes, space and maintenance access

06 **MoEF / environmental support**

Water balance and environmental documentation

How the systems work together

One building is the shared starting point.

Water reaches a fixture

Plumbing carries clean water in and wastewater out.

Air reaches occupied rooms

HVAC routes conditioned air and manages ventilation.

Services share limited space

Coordination aligns shafts, ceiling zones and access.

Fire water remains ready

Fire-system planning links storage, pumps and distribution.

Power reaches each load

Electrical design connects supply, protection and circuits.

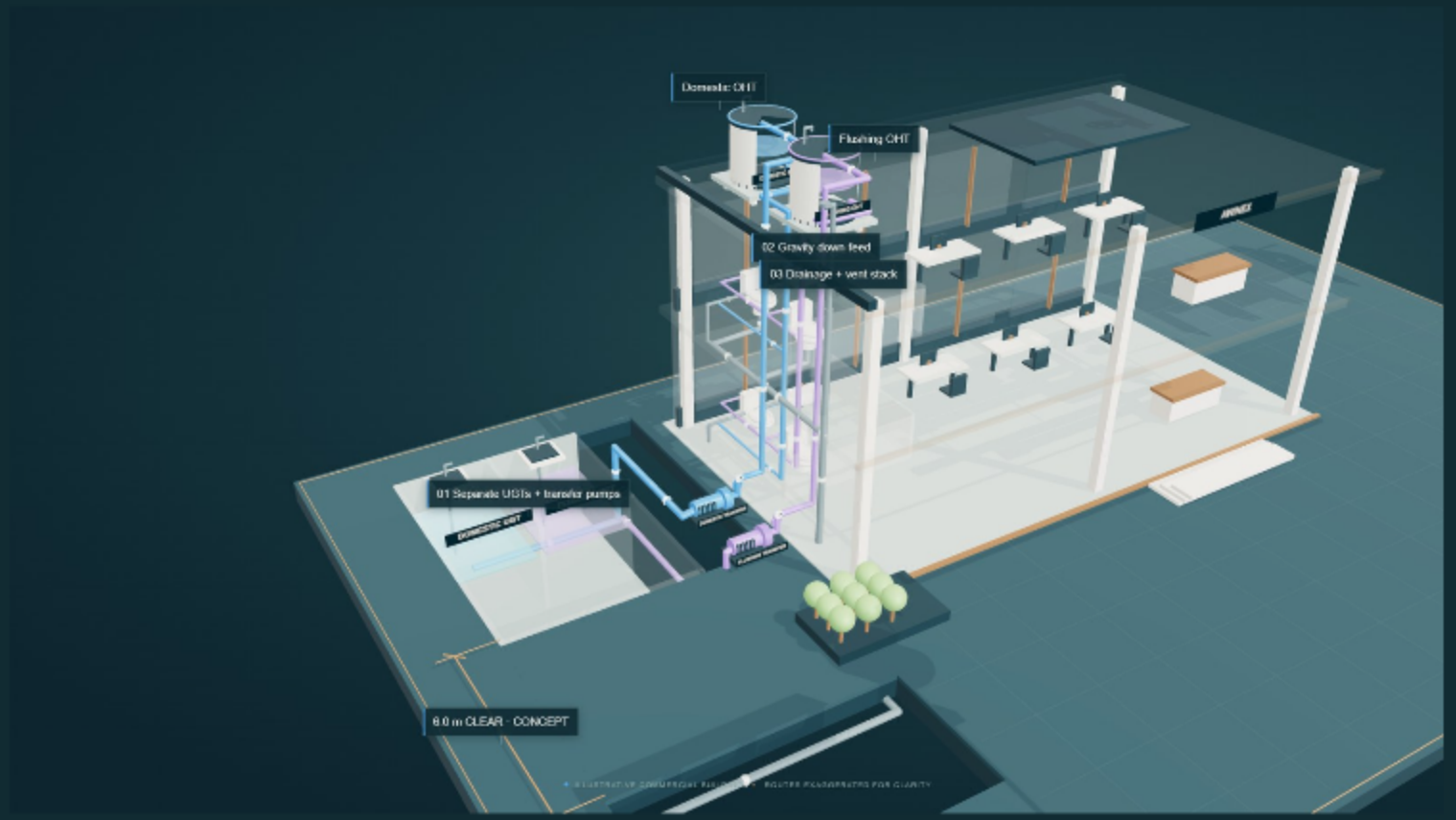
Resources connect to the site

Environmental support links demand, treatment and reuse planning.

Plumbing and public health

Domestic and flushing water follow separate routes through storage and rooftop gravity supply.

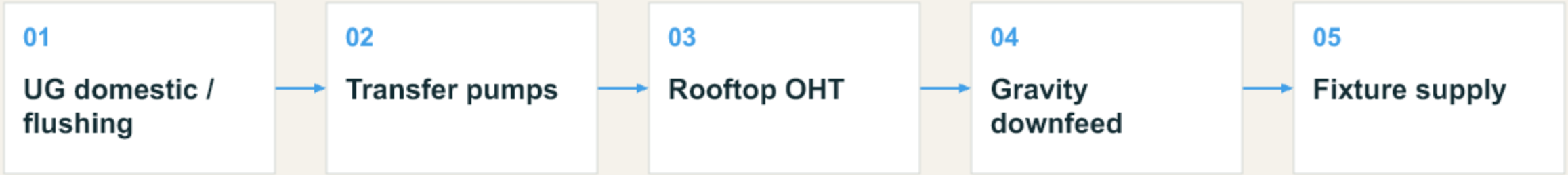
01 Separate underground water tanks
02 Transfer pumps and rooftop OHT
03 Gravity supply to internal fixtures
04 Soil, waste and vent systems



Concept illustration

Water storage and gravity supply

Transfer pumps lift water to the OHT. Gravity feeds the fixtures.



Separate water circuits

Domestic water serves taps. Treated non-potable flushing water serves WC cisterns through separate tanks and pipes.

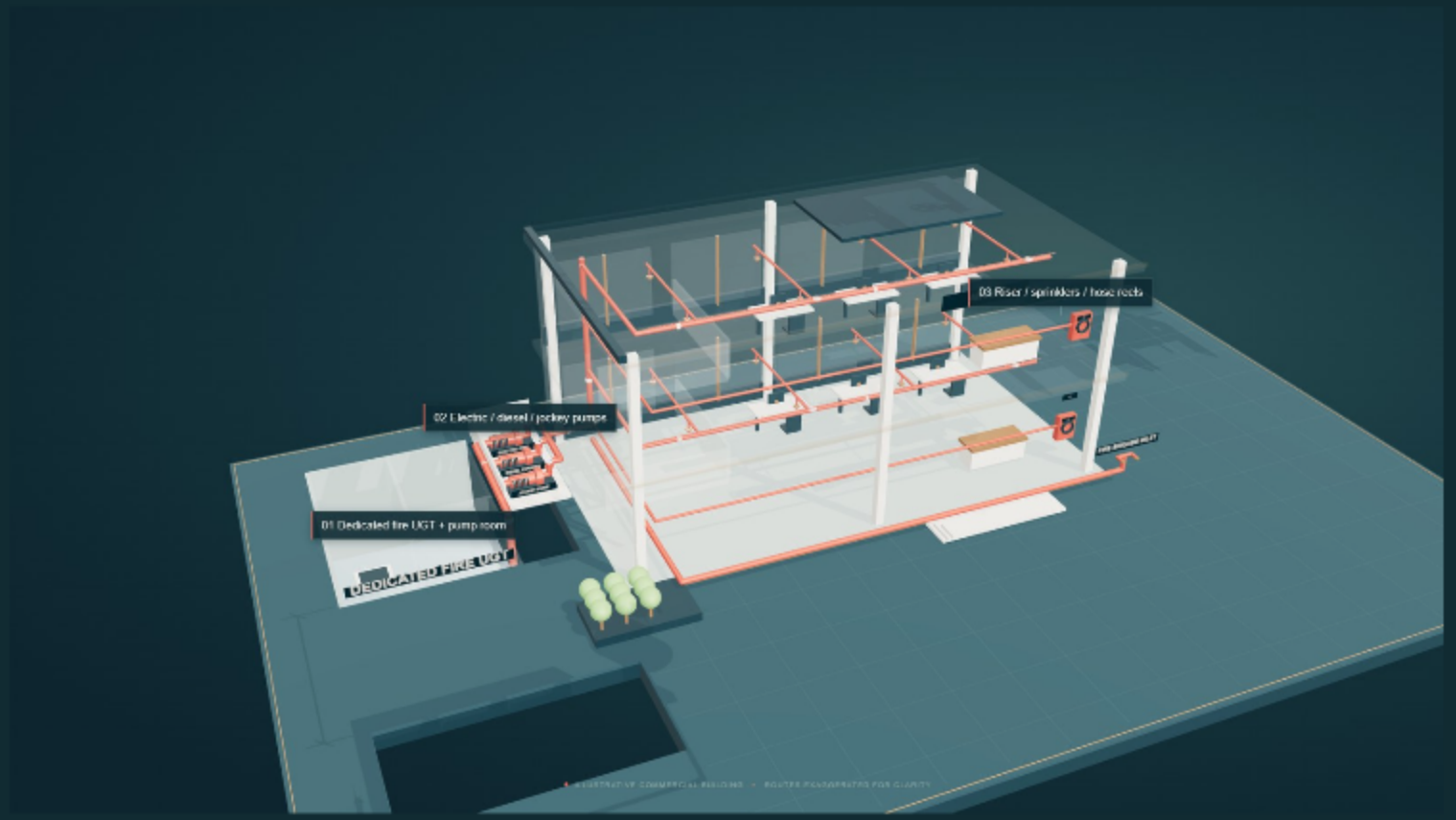
Gravity and pressure

OHT elevation provides static head. Project checks define pressure zones, residual pressure and any booster requirements.

Fire-fighting systems

A coordinated fire-water network supports the building’s fire strategy.

01 Dedicated underground fire tank
02 Electric main, diesel and jockey pumps
03 Wet riser, sprinklers and hose reels
04 Valves and fire-brigade inlet



Concept illustration

Fire-water distribution

Storage and pumps feed a planned distribution network.

01
Dedicated fire tank

→

02
Main / standby / jockey

→

03
Header and wet riser

→

04
Hydrants / sprinklers

Design interfaces

Architecture, occupancy and the fire strategy determine the final arrangement.

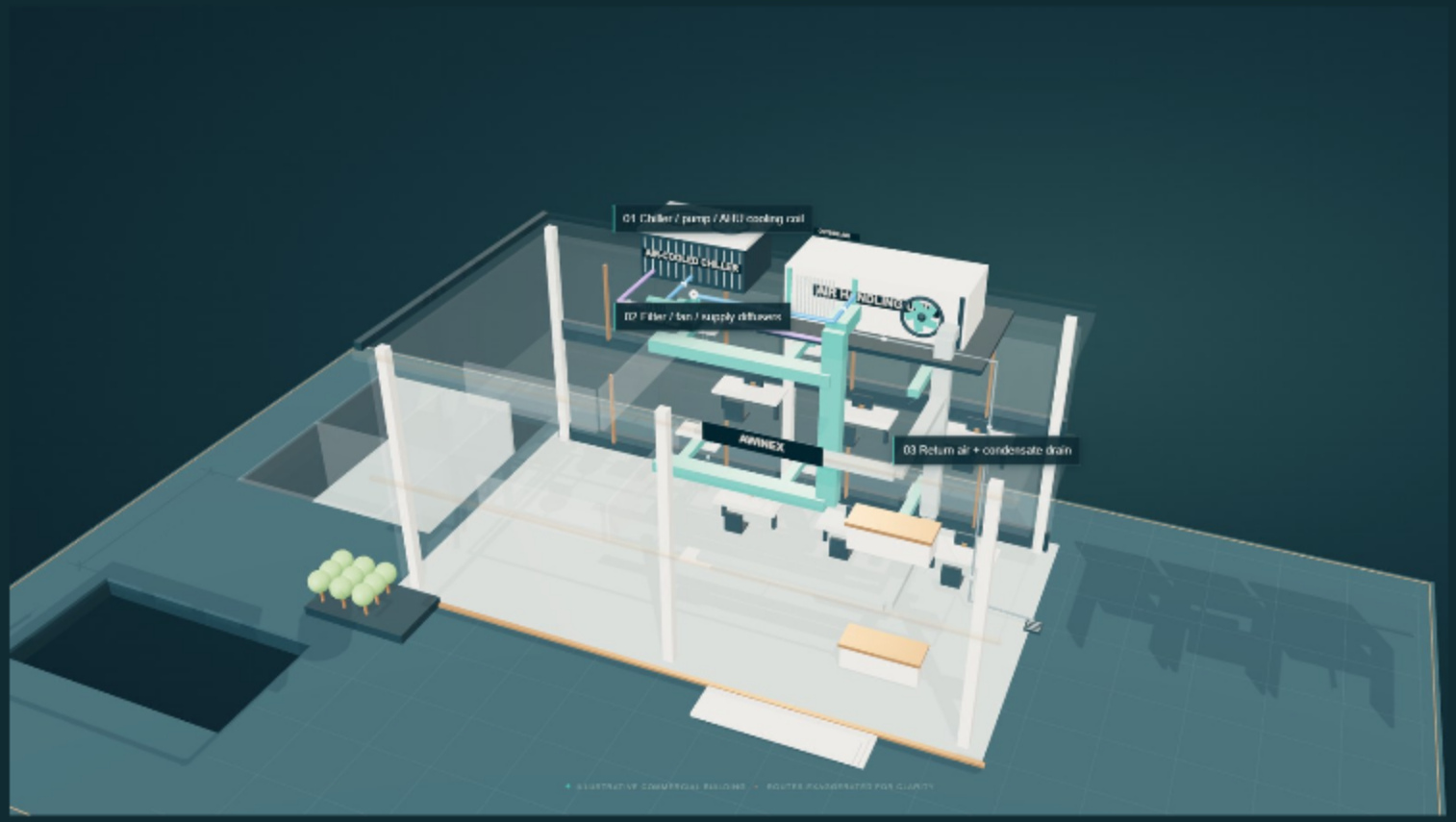
Access and testing

Equipment space and access support inspection, testing and maintenance.

HVAC and ventilation

Air systems connect comfort requirements with the building's use.

01 Air-cooled chiller and water pump
02 AHU filter, cooling coil and fan
03 Fresh air, supply and return ducts
04 Diffusers and condensate drainage



Concept illustration

Cooling plant and air distribution

The water circuit and air circuit meet at the AHU cooling coil.

01 **Air-cooled chiller** → 02 **Chilled-water pump** → 03 **AHU cooling coil** → 04 **Supply air duct** → 05 **Room diffusers**

Comfort requirements

The AHU filter, coil and fan condition the air. Fresh air and return air follow the project ventilation strategy.

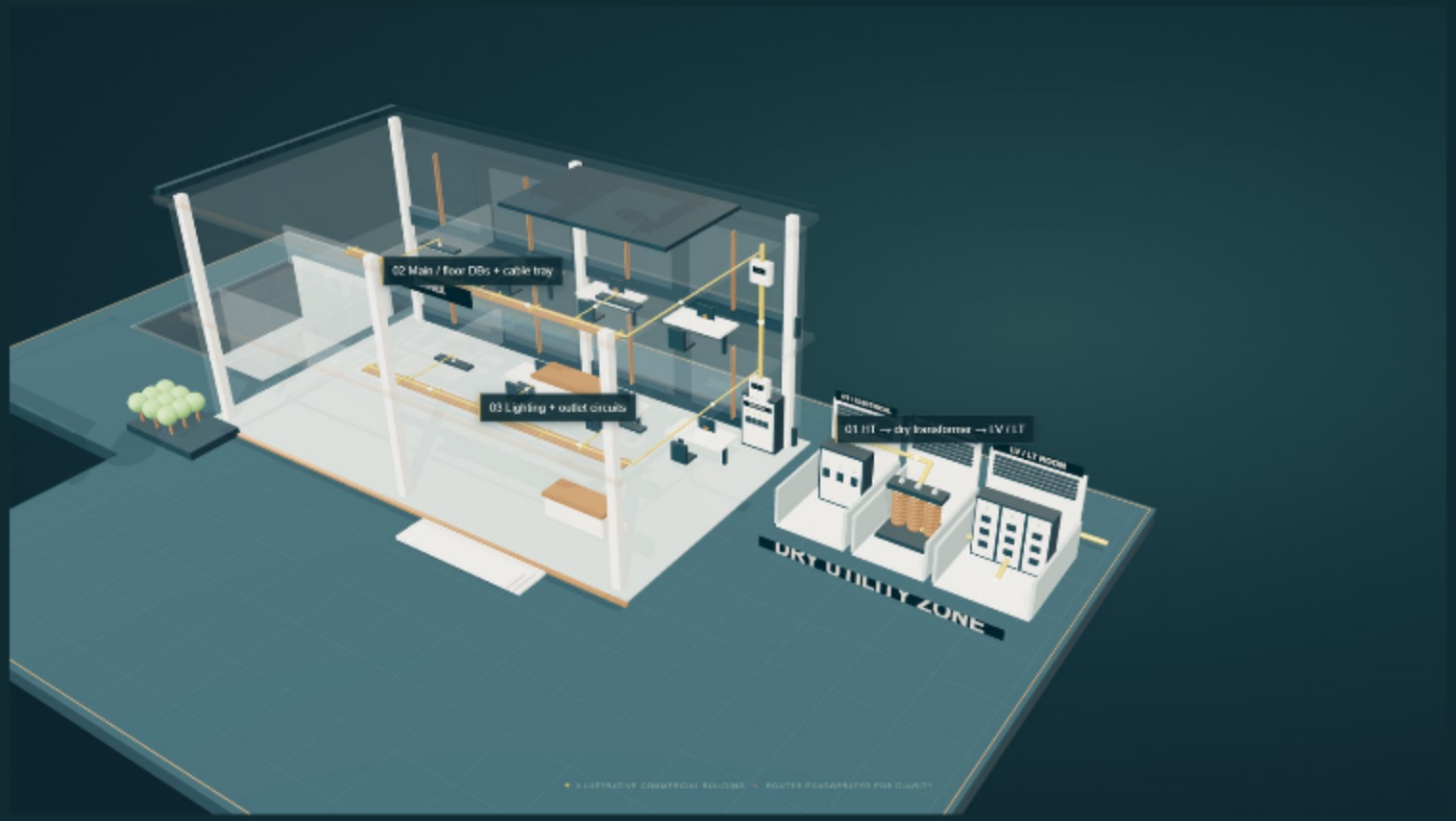
Routing requirements

Supply and return ducts share ceiling space with other services. Coil condensate drains through a separate route.

Electrical systems

Power follows a clear distribution path to the equipment and spaces it serves.

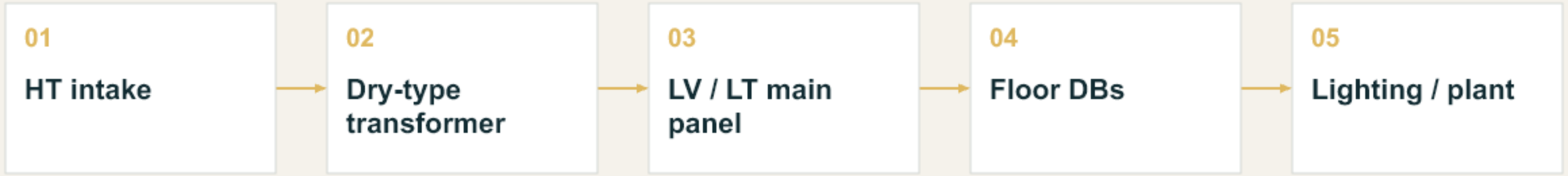
01 HT intake and dry-type transformer
02 LV / LT electrical distribution room
03 Main panel, floor DBs and cable trays
04 Lighting, socket and plant circuits



Concept illustration

Power distribution

The concept connects utility intake to the building distribution network.



Load planning

The equipment schedule informs connected load and demand. Transformer capacity and protection require calculations.

Service coordination

HT, transformer and LV rooms need coordinated space, access, ventilation, earthing and cable containment.

Coordinated MEP

Every route needs space.
Every item needs access.

Shafts and ceiling zones

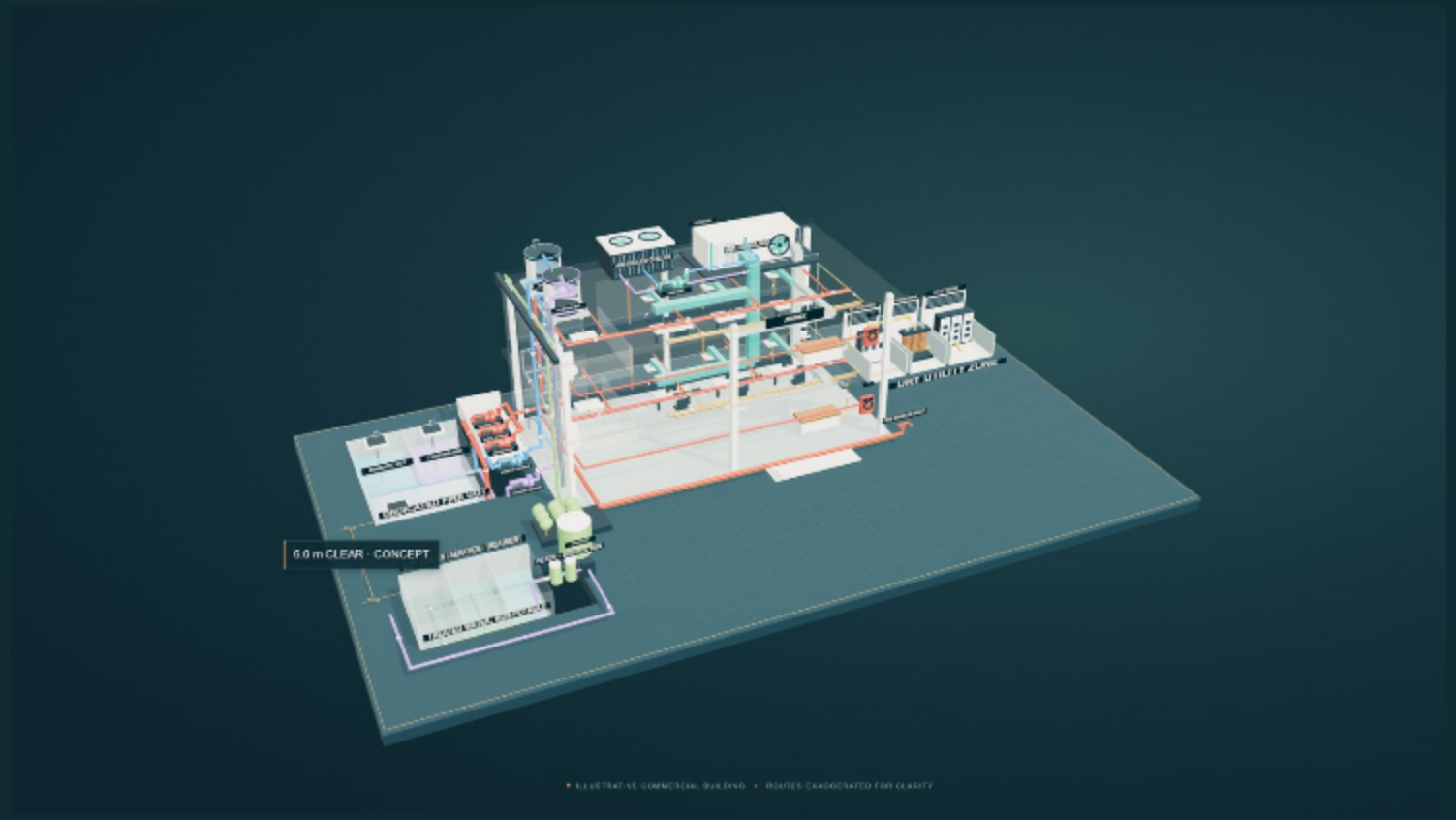
Align service routes with structure and architecture.

Equipment and access

Check plant space, service clearances and access paths.

Design decisions

Record interfaces before drawings progress to the next stage.



Concept illustration

MoEF / environmental support

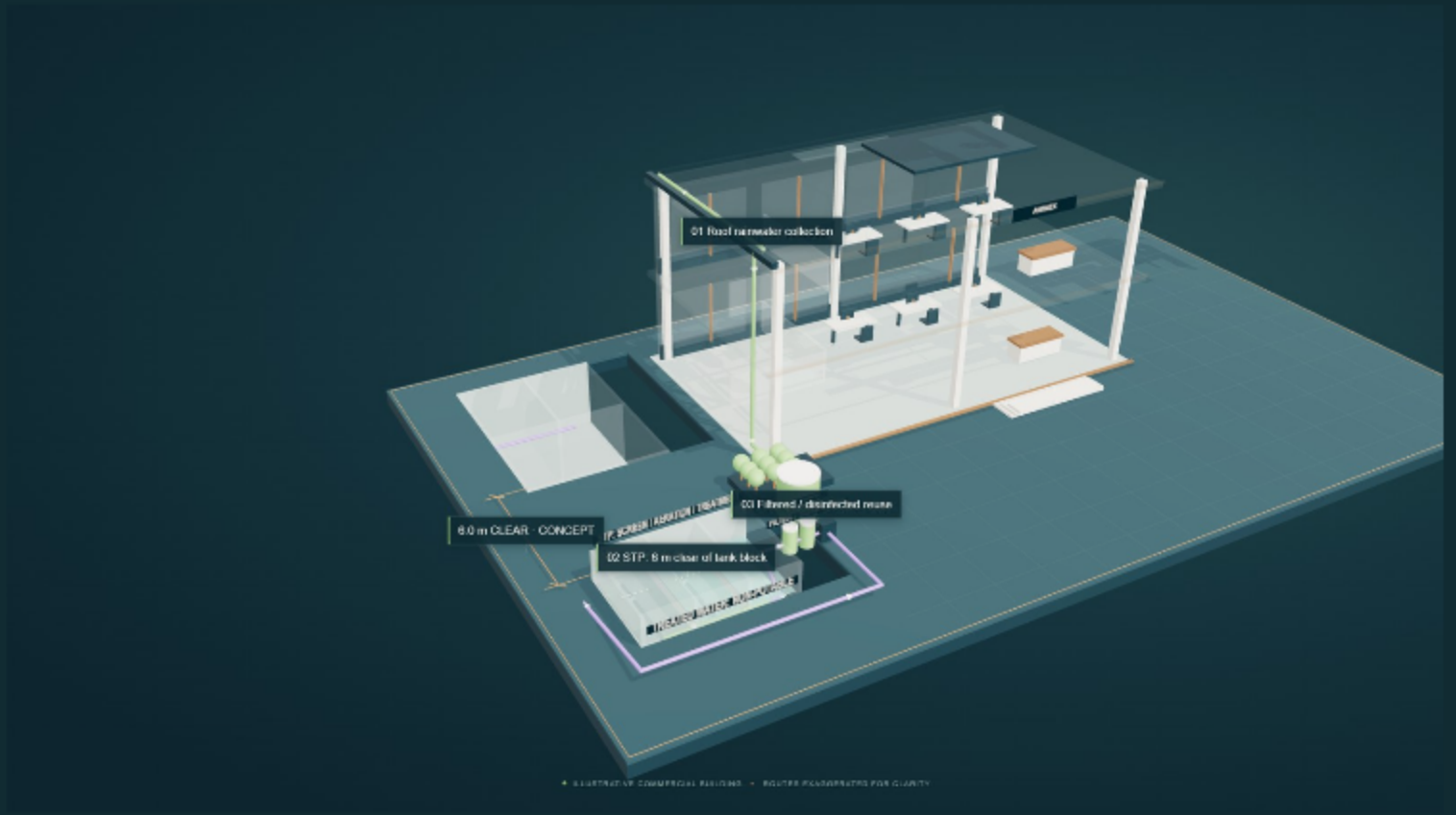
Environmental planning connects building demand with site resources.

01 STP separated from water tanks

02 Filtration and disinfection interfaces

03 Non-potable flushing and landscape reuse

04 Water balance and documentation



Concept illustration

Water and environmental planning

A clear water balance connects the systems to the project documents.

01 Roof runoff	02 Collection and filtration	03 Storage / recharge planning
01 Wastewater and STP	02 Filter / disinfection	03 Non-potable reuse
01 Project water balance	02 Demand and supply inputs	03 Design and document checks

STP concept shows a 6.0 m clear gap from water tanks, as requested. Final separation requires site and authority review.

Project workflow

Design develops through defined reviews and coordinated information.

01

Brief and inputs

Building use, drawings, site conditions and utilities

02

Design criteria

System concepts, loads, equipment and space requirements

03

Coordination

Routes, shafts and interfaces with architecture and structure

04

Documentation

Layouts, schematics, schedules and tender information

05

Execution support

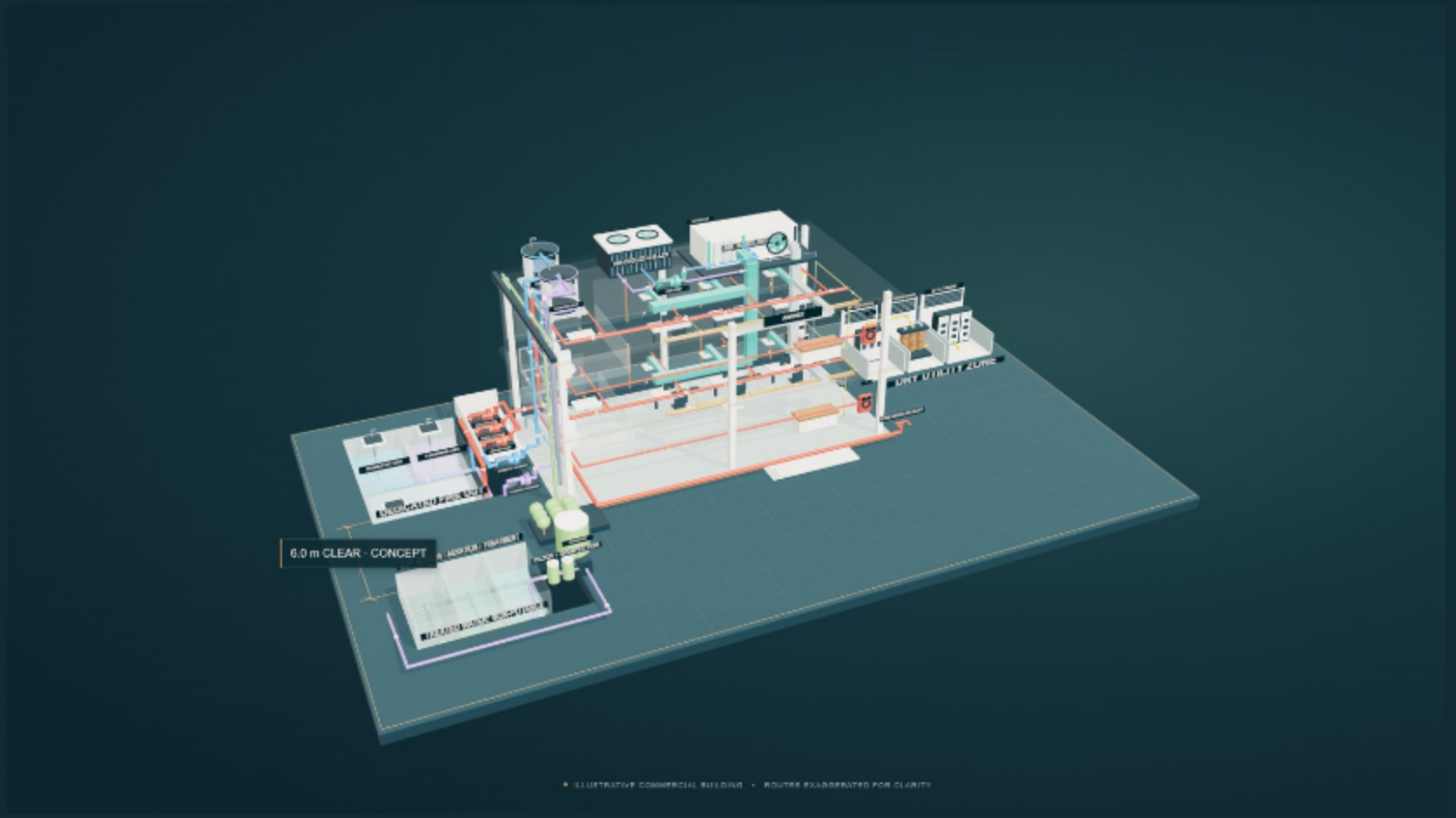
Design queries and agreed coordination assistance

The project design package

The appointment defines the final deliverables and review stages.

Design information	What it explains
Design basis	Criteria, system concepts and engineering assumptions
Layouts and schematics	System routes, equipment positions and connection logic
Schedules and BOQ inputs	Loads, equipment information and scope-aligned quantities
Coordination records	Service interfaces, decisions and drawing responses
Environmental inputs	Water balance, STP / reuse planning and document coordination

The systems in motion



One service at a time

Watch underground tanks, OHT gravity supply, STP, fire pumps, transformer distribution and HVAC within one building.

64-second concept film

Your project starts with a clear brief.

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