



CRAFTRUDER

Precast Construction 3D Printing

COMPREHENSIVE SOLUTIONS FOR MODERN DEVELOPMENT

houses structures fences landscaping elements

Concrete 3D-printing technology



CRAFTTRUDER

Precast Construction 3D Printing

CONTENTS

01

Fences and Enclosures

02

Small-Scale Architecture

03

Landscape and Furniture

04

Buildings and Interiors

05

City and Infrastructure

WE DIGITIZE CONCRETE.

8 YEARS OF EXPERIENCE

in 3D-printed block production

100,000 m²

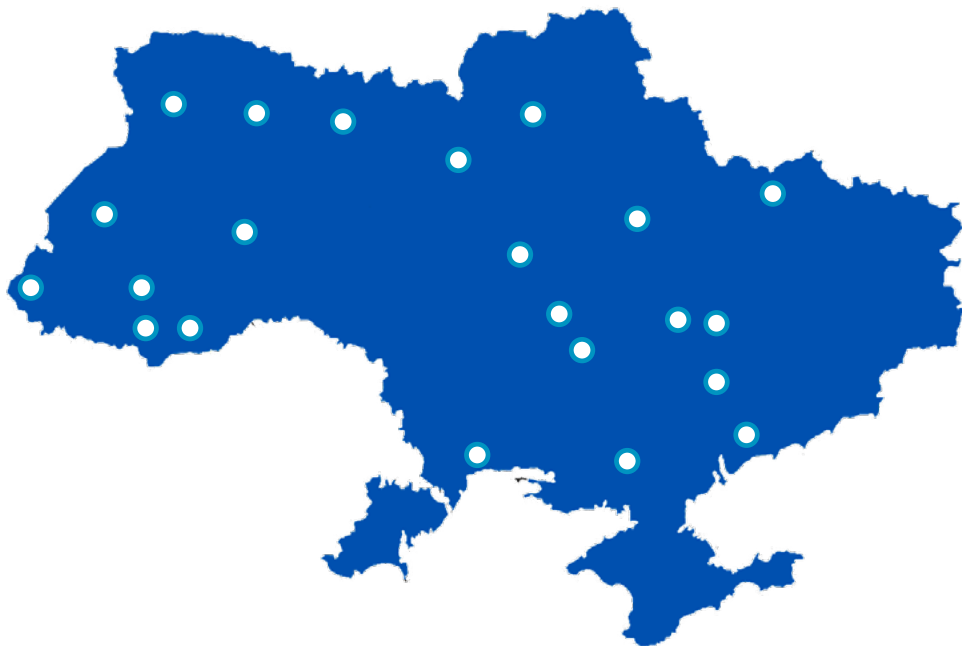
of walls printed

1,000+

completed projects

40+ t

of products exported



CRAFTRUDER transforms a digital model into repeatable precast concrete elements - from fences and benches to wall modules and urban structures.

We combine design, factory-based 3D printing, quality control, logistics and installation. The visible layered relief becomes a distinctive language of the material.

Forms are created without traditional formwork. Geometry is adapted to each project.



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FENCES



COTTAGES



GAZEBOS
GARAGES



UTILITY
BUILDINGS



LANDSCAPING



VENTILATION
DUCTS

Decorative double-sided finish

Creates reliable thin-walled structures without unnecessary finishing costs.

Flexible programming

Products can be quickly adapted to any project.

Durability

Reinforced M250 concrete delivers strong performance characteristics:

M250

Grade

2,270 kg/m³

Density

F150–200

Freeze-thaw resistance

W6

Water resistance

≤ 3%

Water absorption

FULL-CYCLE MANUFACTURING

Concrete 3D printing with quality control at every stage



CRAFTRUDER construction 3D printer

01 - CONSISTENT RAW MATERIALS

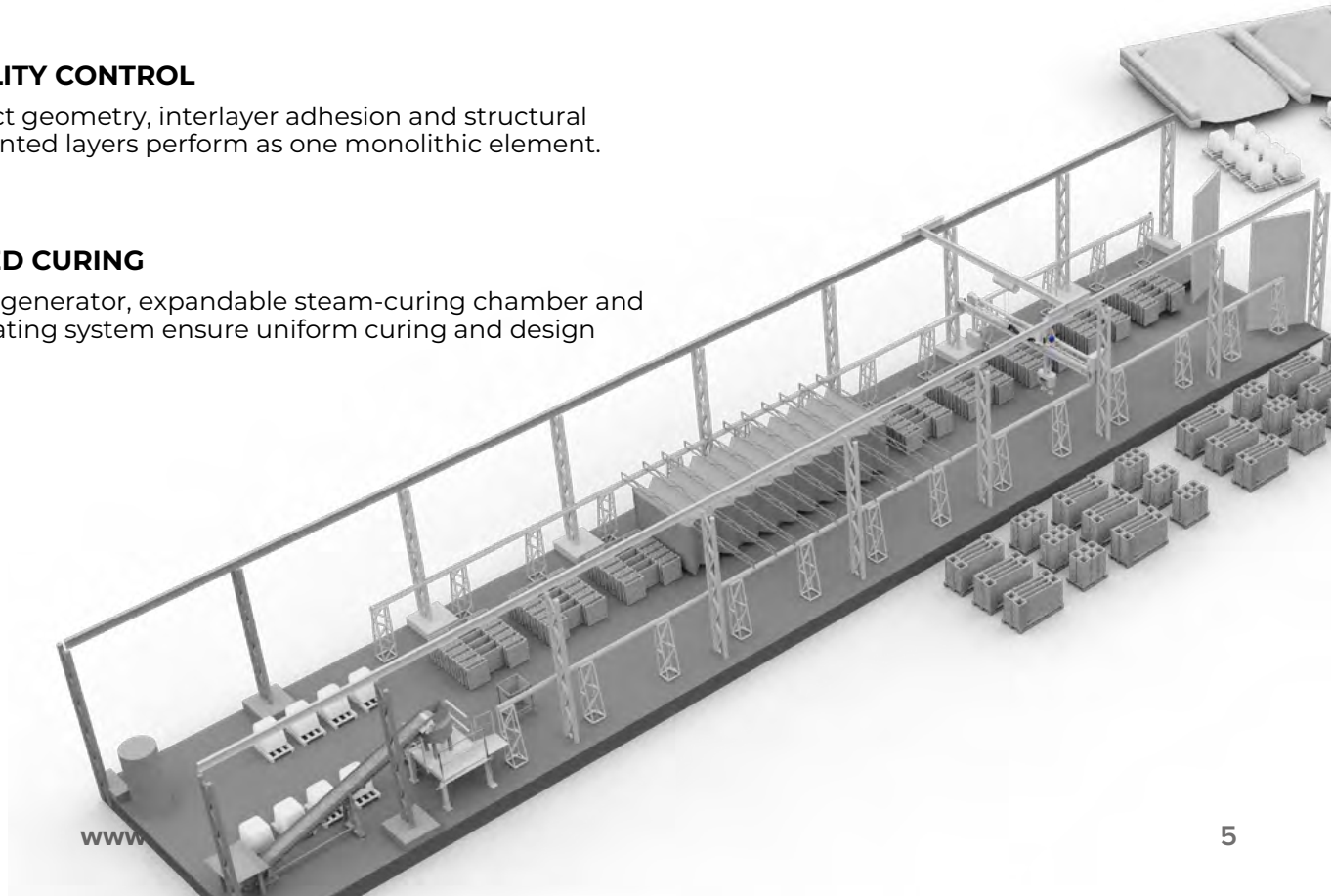
We use clean, washed 2-5 mm crushed stone with no fines. A controlled mix composition ensures consistent strength and concrete durability.

02 - PRINT QUALITY CONTROL

We control product geometry, interlayer adhesion and structural integrity so the printed layers perform as one monolithic element.

03 - CONTROLLED CURING

A solid-fuel steam generator, expandable steam-curing chamber and industrial floor-heating system ensure uniform curing and design strength.

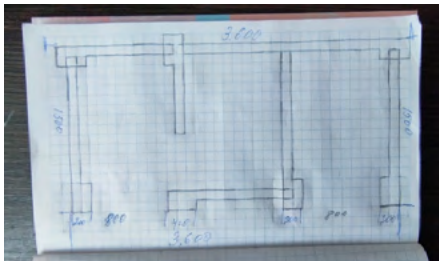


FROM CONCEPT TO COMPLETED STRUCTURE

01

Brief

Dimensions, setting and required specifications.



02

Digital Model

Geometry is adapted for printing, joints, reinforcement and installation.

***Complimentary
3D visualization**



03

Manufacturing

Layer-by-layer printing, geometry control, steam curing and packaging.



04

Installation

Delivery, installation and painting.





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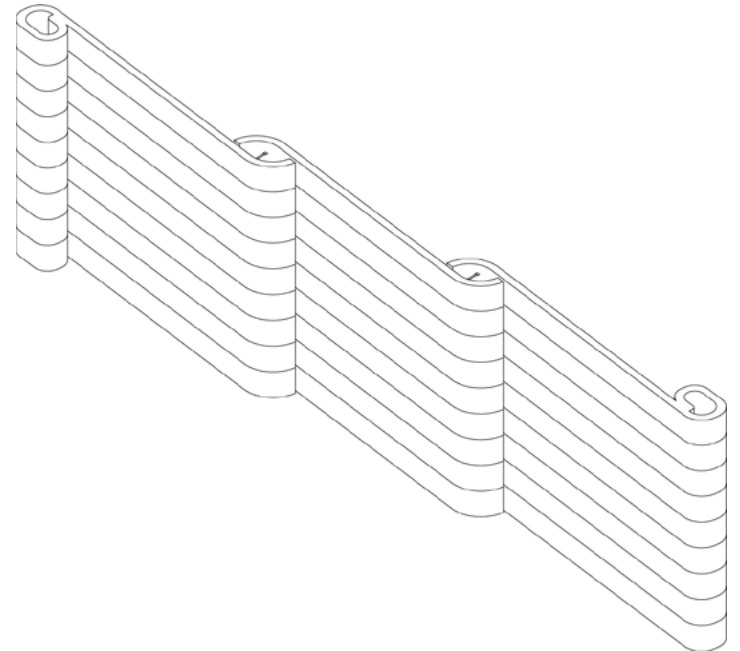
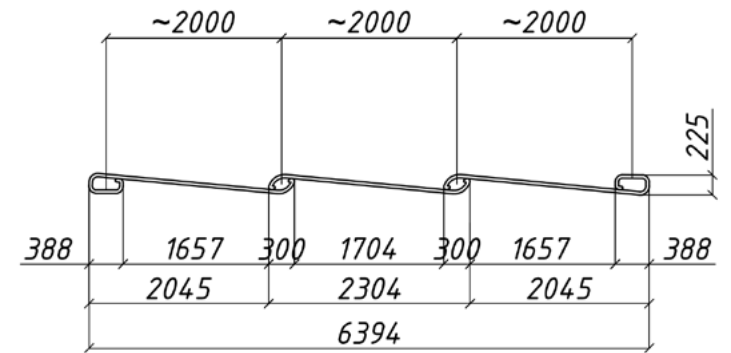
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01

CRAFT FENCES

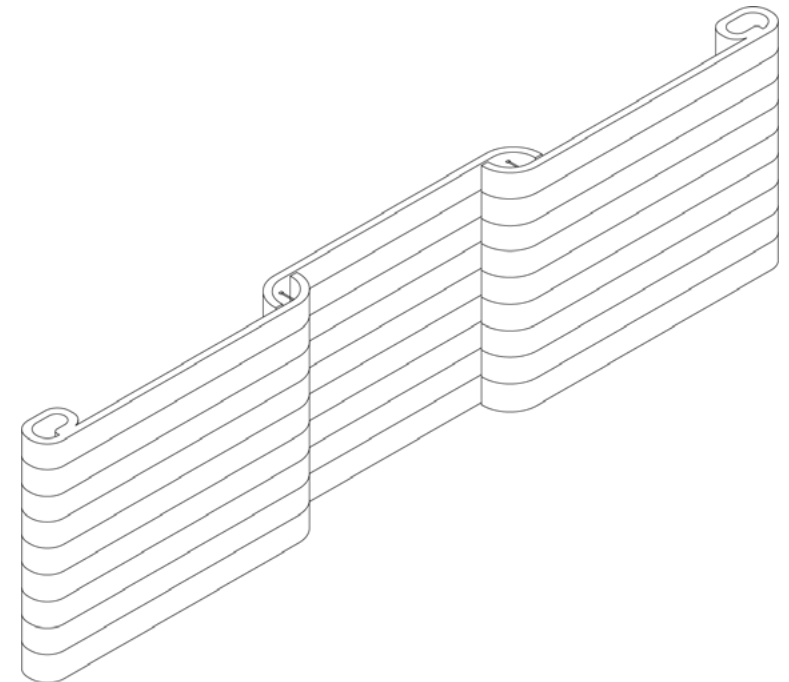
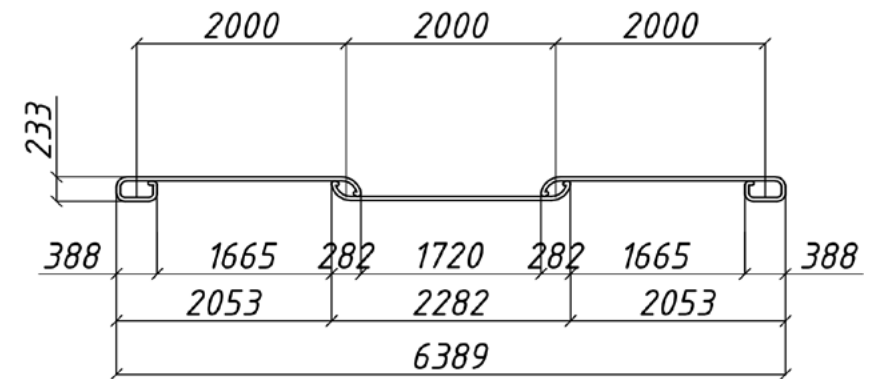
FENCES

Wave



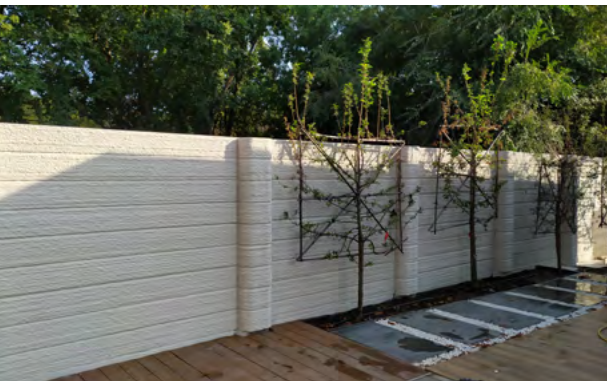
FENCES

Chain

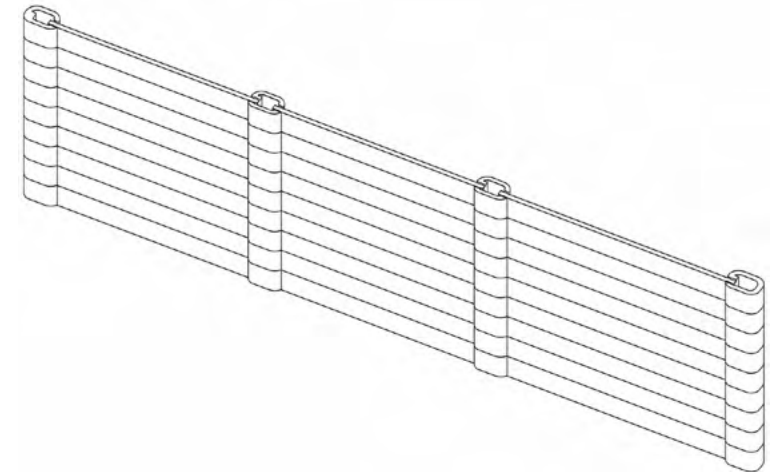
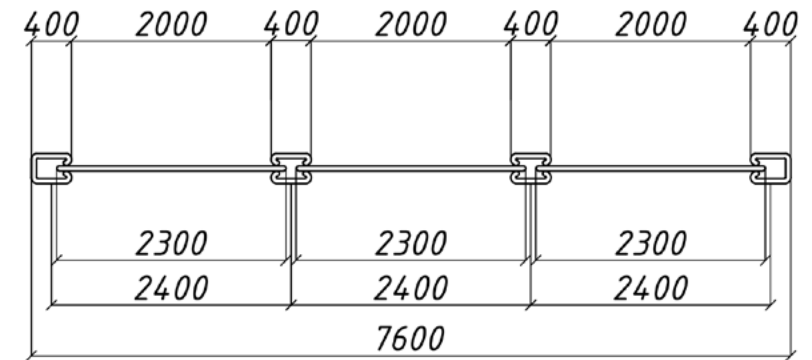


FENCES

Classic 40



- For sloped sites
- Custom module spacing
- Combined with metal

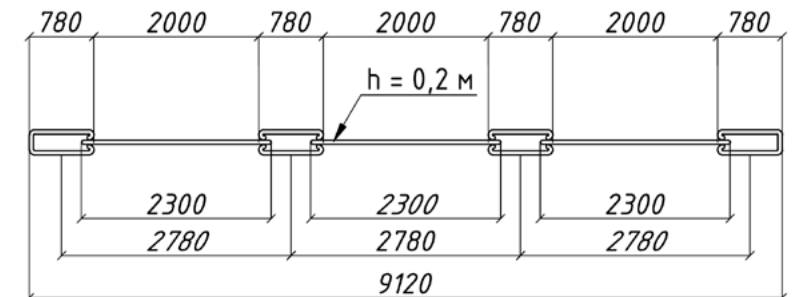


FENCES

Classic 80

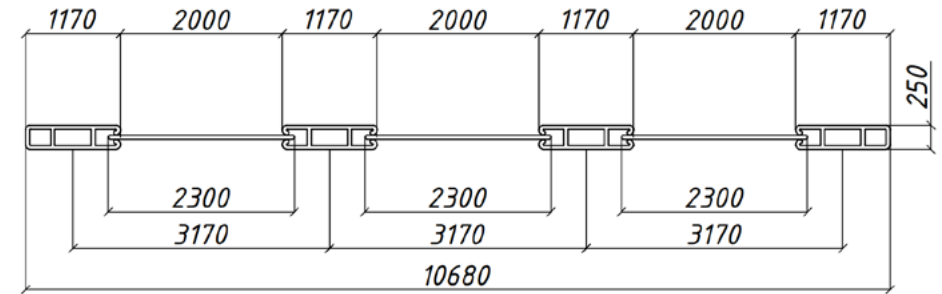


- For sloped sites
- Custom module spacing
- Combined with metal



FENCES

Classic 120



- Monumental character
- Custom module spacing
- Combined with metal
- For sloped sites

FENCES

Butterfly



Rounded columns add sculptural flow to the fence and create shifting shadows throughout the day. A statement model for contemporary architecture.

- Sculptural geometry
- Deep shadows
- Custom module spacing
- Combined with metal

FENCES

Columns

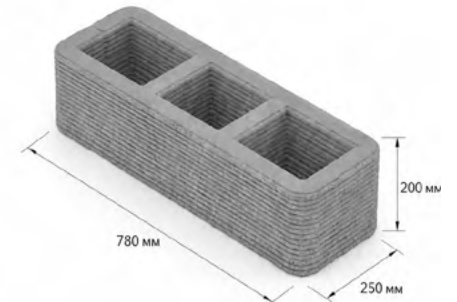
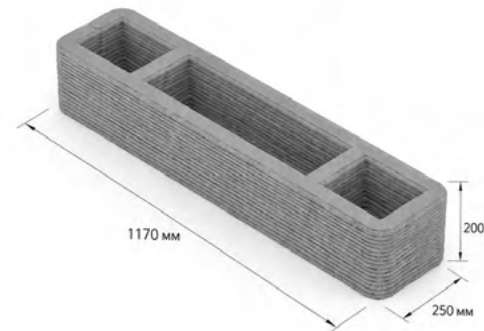
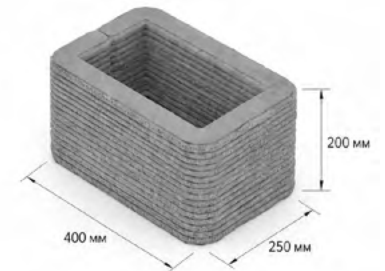


— Between the vehicle and pedestrian gates

— Various cross-sections

— Combined fence systems

— Suitable for canopy supports



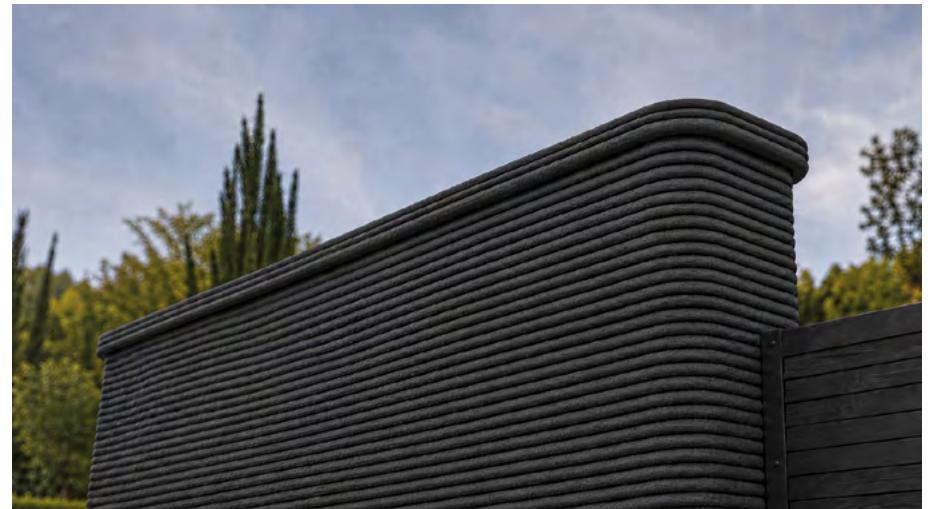
FENCES

Fence Caps



— Matching fence texture

— Soft radii



FENCES

Kharkiv

Deep vertical columns transform a long fence into an architectural facade. The model is especially expressive in graphite tones.

Expressive

Distinctive



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FENCES

Odesa

Rounded segments form a soft, almost landscape-like boundary. Lighting and planting enhance the depth of the relief.

Smooth radii

Premium landscape aesthetic



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FENCES

Fence with Planters

The fence is combined with integrated planting volumes. Individual planters become one continuous green composition along the facade.

Integrated planting

Variable module heights



SERVICE LIFE WITHOUT REPAIRS

20-30 years

AAC blocks + decorative plaster facade



100+ years

3D-printed wall





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02

SMALL-SCALE ARCHITECTURE

SMALL-SCALE ARCHITECTURE

Gazebos

Printed supports and enclosures create an expressive base for a lightweight roof, lighting and furniture. Geometry can be classical or minimalist.

— Custom form

— Integrated lighting

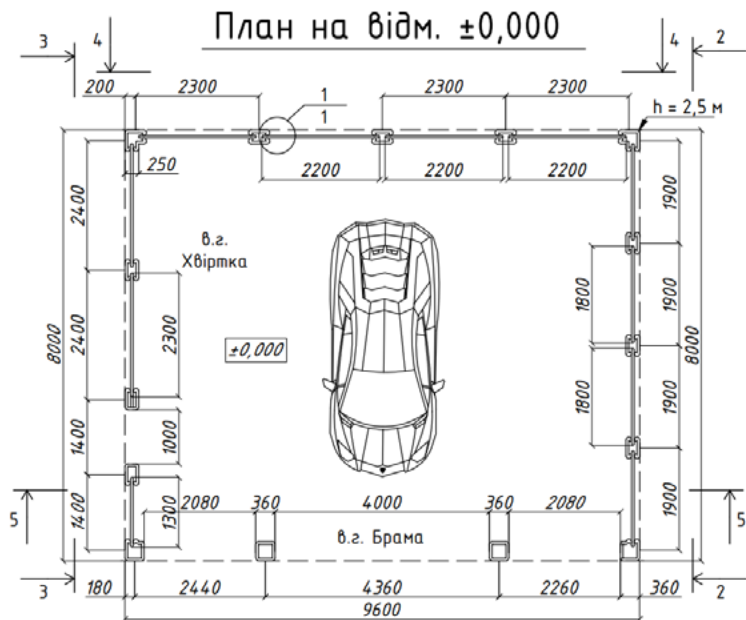


SMALL-SCALE ARCHITECTURE

Garages

For a vehicle, workshop or storage. The printed texture serves as a finished facade.

- Rapid-assembly walls
- Finished facade texture



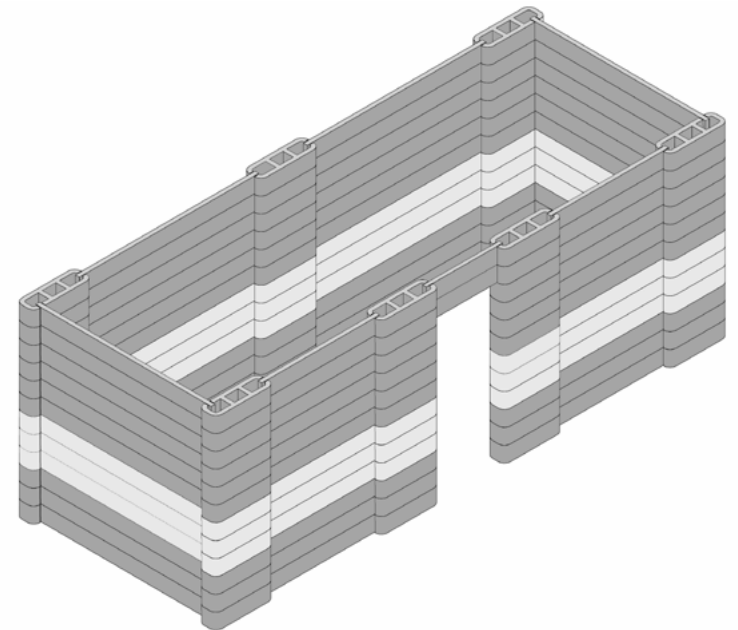
SMALL-SCALE ARCHITECTURE

Utility Buildings



A stand-alone module for tools, machinery or garden equipment.

- Durable shell
- Tailored to the site
- Insulated or uninsulated

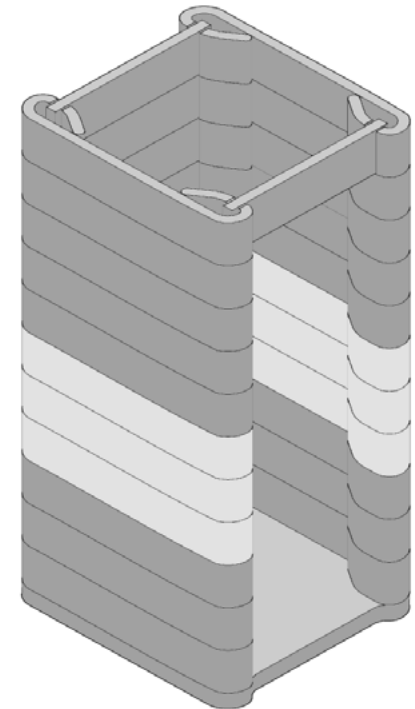


SMALL-SCALE ARCHITECTURE

Outdoor Restrooms



A stand-alone sanitary unit for private property, parks or campsites.



SMALL-SCALE ARCHITECTURE

Changing Rooms

Compact cubicles or grouped units for beaches, pools, sports and recreation areas.

— One or more cubicles

— Easy to clean



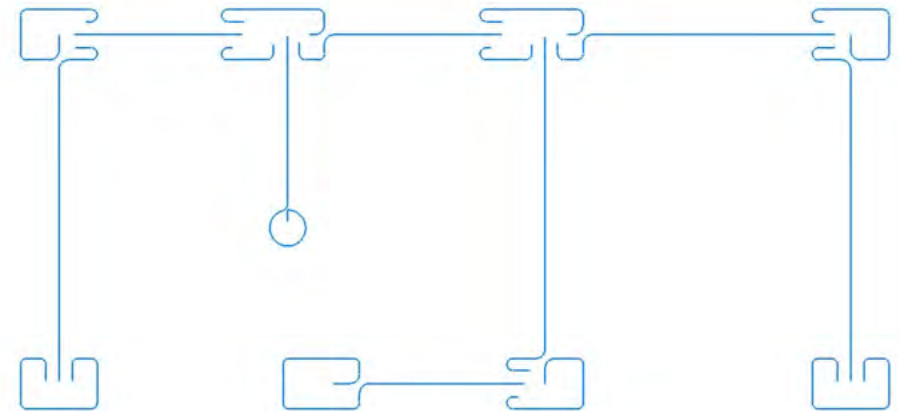
SMALL-SCALE ARCHITECTURE

3-in-1 Unit



A shower, changing room and toilet are combined in one compact structure with separate functional zones. Suitable for private and public spaces.

— Project-specific fit-out





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03

LANDSCAPE & FURNITURE

Sculptural forms that organize terrain, planting and places to rest.

LANDSCAPE & FURNITURE

Retaining Walls

Straight or curved walls retain terrain while shaping the architecture of a garden. Printing enables complex geometry without custom formwork.





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LANDSCAPE & FURNITURE

Large Planters

Large planters for trees, shrubs and grasses zone the space and create calm concrete accents.

Varied proportions

For private and urban spaces

LANDSCAPE & FURNITURE

Planters

A collection of compact forms for terraces, entrances, courtyards and commercial spaces. Tall, low and elongated modules combine easily into a series.



LANDSCAPE & FURNITURE

Flower Beds

Curved and multi-level flower beds. Their flowing geometry is especially suited to premium landscaping.





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LANDSCAPE & FURNITURE

Raised Garden Beds

Raised concrete modules make plant care easier and bring order to the garden. Geometry can be straight, angular or curved.

— Comfortable working height

— Clear zoning

— Durable shell

LANDSCAPE & FURNITURE

Barbecue

A printed body for the grill, oven and worktop, with integrated storage niches. The architectural volume can be adapted from a compact terrace installation to a complete outdoor kitchen. The firebox is lined with refractory fireclay.



LANDSCAPE & FURNITURE

Fire Pit

A circular composition combines a central fire bowl with curved seating, creating a complete setting for evenings in a garden or hotel landscape.

- Circular layout
- Modular seating
- Integrated lighting option





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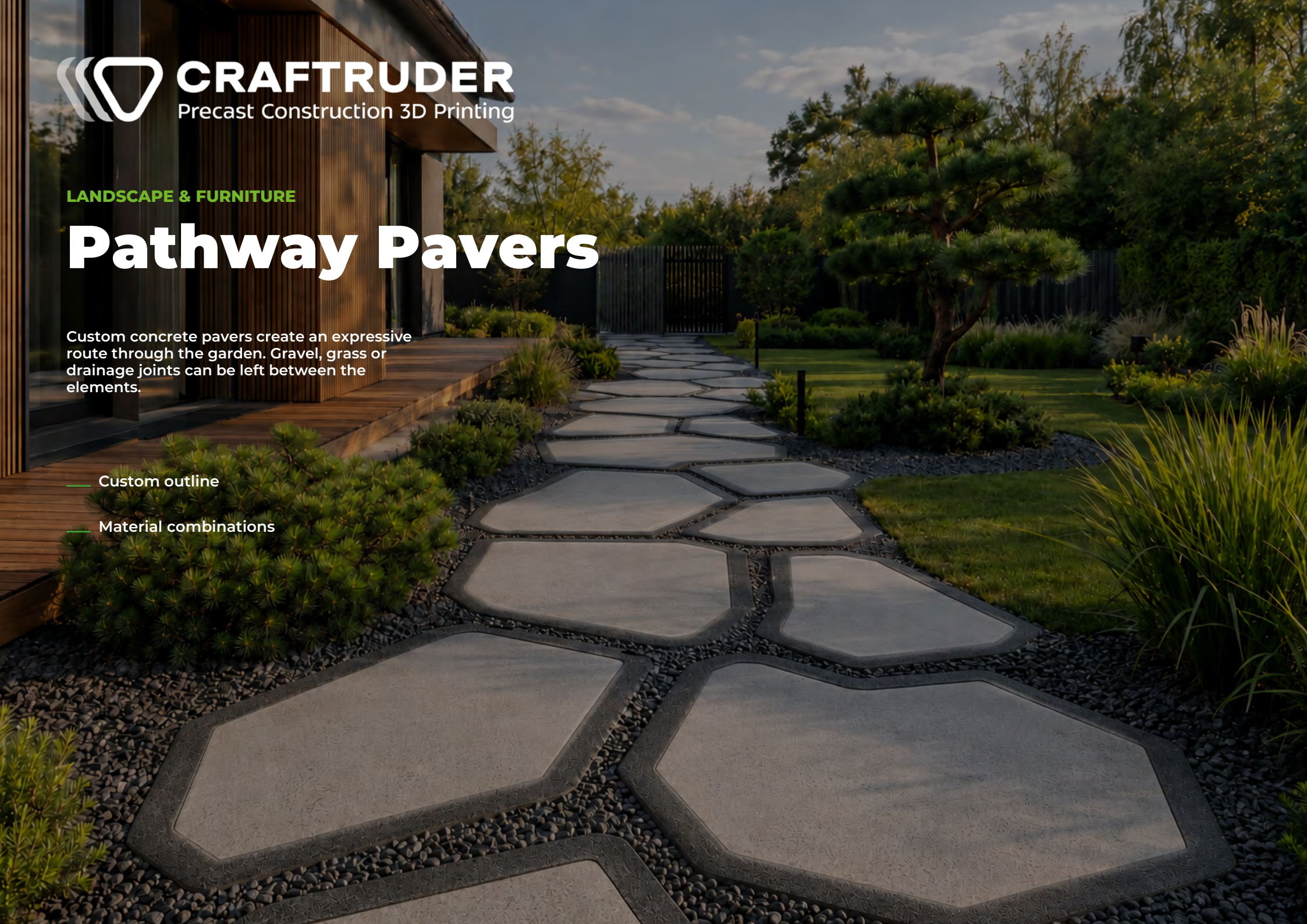
LANDSCAPE & FURNITURE

Pathway Pavers

Custom concrete pavers create an expressive route through the garden. Gravel, grass or drainage joints can be left between the elements.

— Custom outline

— Material combinations





CRAFTTRUDER
Precast Construction 3D Printing

04

BUILDINGS & INTERIORS

BUILDINGS & INTERIORS

Duplex Homes

Two independent units. Printed blocks create an expressive facade and make the standard solution easy to replicate.



BUILDINGS & INTERIORS

Cottages

One- and two-story houses made from printed blocks. Architecture is adapted to the site and the client's requirements.



SOLID AS A ROCK



**NO FACADE
OR FINISHING
CREWS NEEDED**

Energy Efficiency

The structure provides high thermal resistance of $5.05 \text{ m}^2 \cdot ^\circ\text{C/W}$ and meets requirements for thermal protection and moisture control.

Cost-Effective

The finished decorative surface reduces spending on finishes, additional materials and specialist labor. The total solution can be comparable in cost to AAC construction and, in some cases, more economical.

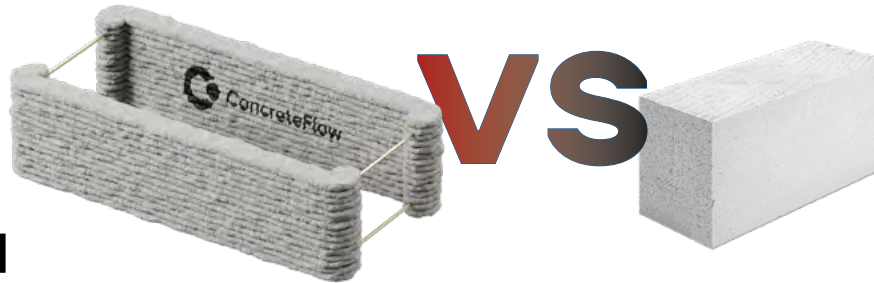


**A MODERN
AESTHETIC FACADE**

3D BLOCK

AAC BLOCK

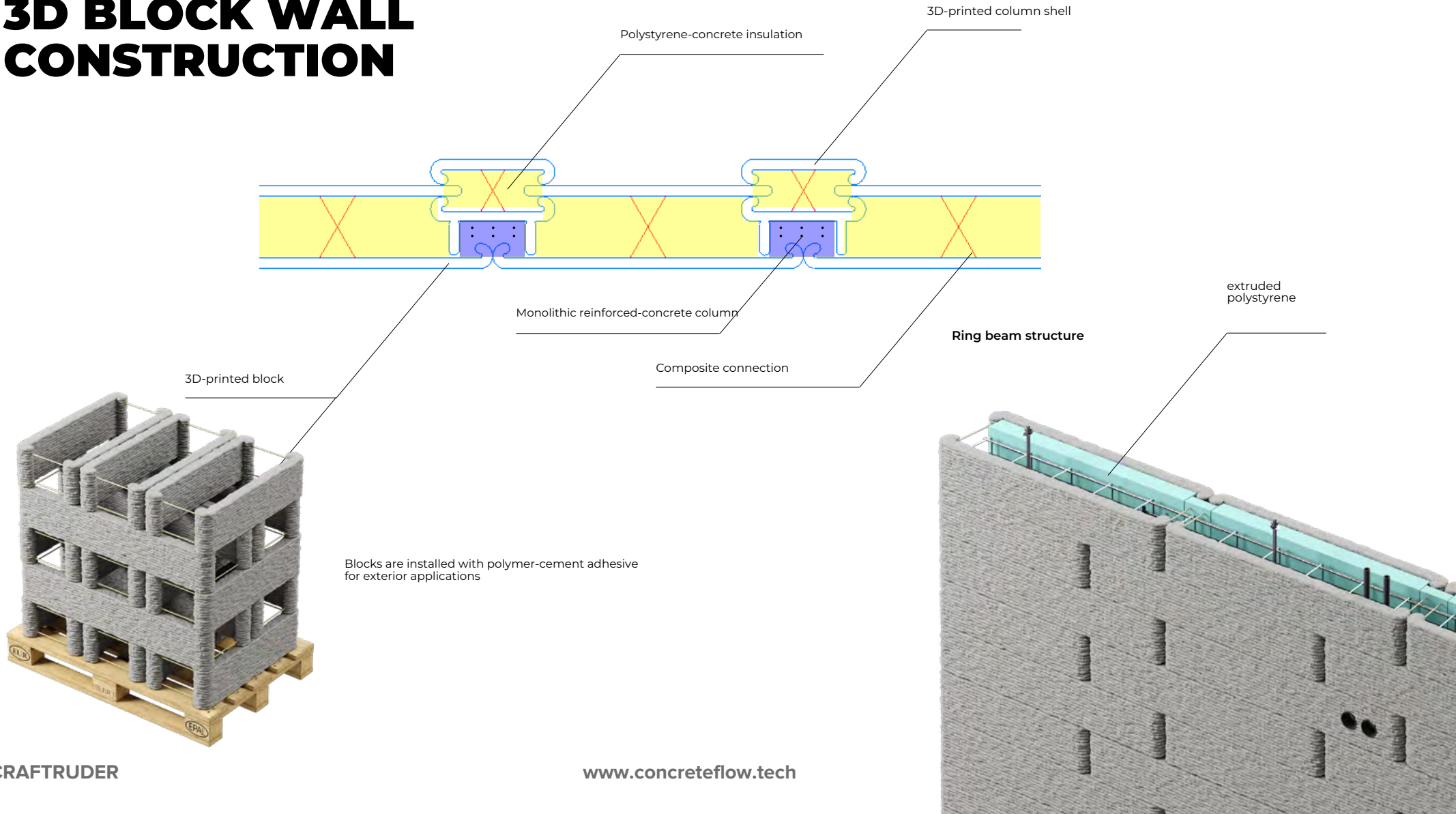
**Current Kyiv prices as of 19.03.2026*



COMPARISON

	3D wall, UAH/m ²	AAC, UAH/m ²	
Wall blocks	2600	1300	AAC blocks: UAH 3,585/m ³
Block laying / installation	1200	780	AAC blocks: UAH 1,600-2,600/m ³
Masonry reinforcement (materials + labor)	—	230	
D200 foam concrete	840	—	
Foam-concrete pouring	435	—	UAH 700-2,200/m ³
Mineral wool + rendered facade + finish (materials + labor)	—	2775	
Interior finish ready for painting (materials + labor)	—	1800	MP75, HP Finish, CT17, interior paint
Painting on both sides (labor + materials)	580	—	
	5655	6885	

3D BLOCK WALL CONSTRUCTION



BUILDINGS & INTERIORS

Offices and Retail Pavilions



A small office, showroom, sales point or work pavilion. Panoramic glazing and printed concrete surfaces create a contemporary, professional image.

- Compact module
- Panoramic glazing
- Rapid deployment

BUILDINGS & INTERIORS

Fireplaces

A printed concrete shell forms a monolithic portal and a strong vertical feature. Geometry can be adapted for shelves and ventilation grilles.

— Textured surface





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BUILDINGS & INTERIORS

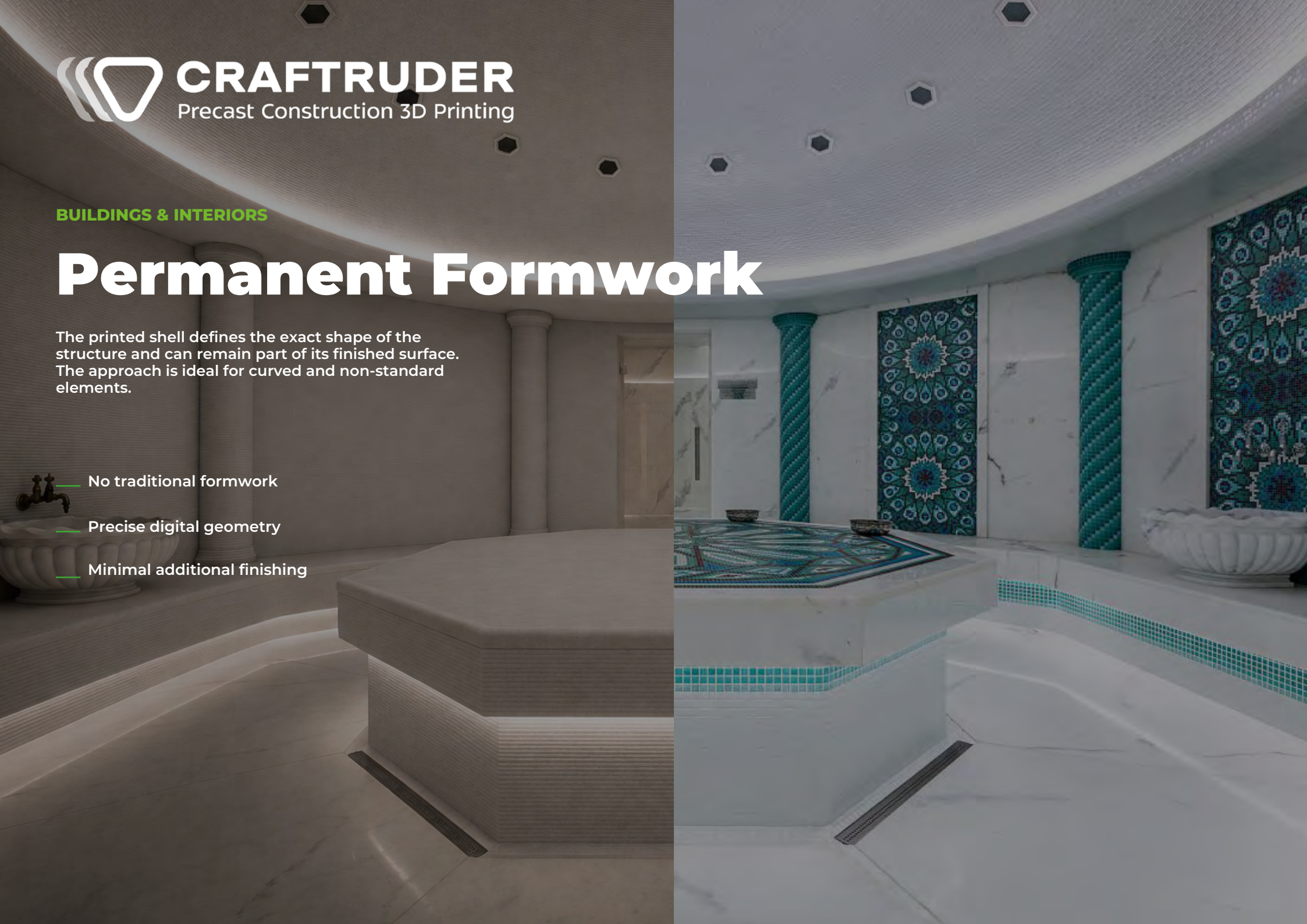
Permanent Formwork

The printed shell defines the exact shape of the structure and can remain part of its finished surface. The approach is ideal for curved and non-standard elements.

— No traditional formwork

— Precise digital geometry

— Minimal additional finishing

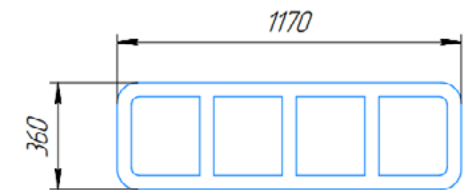
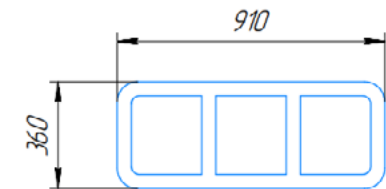
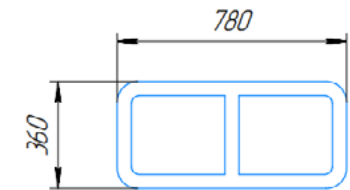


BUILDINGS & INTERIORS

Ventilation Ducts

Printed thin-walled shells save valuable floor area. Digital production allows the cross-section and external form to be varied.

- Custom cross-section
- Architectural integration
- Repeatable production





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CITY SHELTER
PUBLIC SAFETY

SHELTER

05

CITY & INFRASTRUCTURE

From everyday elements to memorial and protective structures.

Curved Benches



A bench wraps around a tree or flower bed, turning planting into the center of the composition.

CITY & INFRASTRUCTURE

Benches for Public Spaces



Circular and curved modules organize places for waiting, meeting and short breaks. The system scales to the size of the space and pedestrian flow.

CITY & INFRASTRUCTURE

Sculptural Modules



Individual elements serve as benches, loungers, tables or informal seating. One sculptural language can shape an entire space.



CITY & INFRASTRUCTURE

Modular Series

Straight, corner, circular and combined elements give architects a toolkit for their own composition.



CITY & INFRASTRUCTURE

Shelters

Printed permanent-formwork shells combined with monolithic concrete and an internal reinforcement cage provide structural protection. They can be integrated into the landscape and architecture of a development. Printing creates complex concrete contours without decorative cladding.

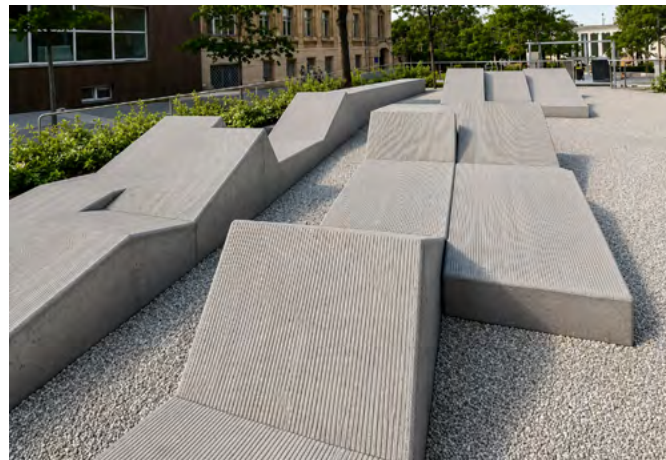


CITY & INFRASTRUCTURE

Playgrounds



Mazes, low reliefs, edges and interactive forms create a coherent play environment. Flowing contours are a natural result of the printing process.



CITY & INFRASTRUCTURE

Memorials



Custom memorial compositions. Printed texture adds tactility to the material, while precise geometry creates a unified ensemble.

CITY & INFRASTRUCTURE

Fountains

Basins, edges, cascades and decorative modules with sculptural geometry. Printed concrete provides a base for mosaic finishes.



CITY & INFRASTRUCTURE

Bus Stops

Concrete bases, windbreak walls, benches and planting are combined beneath one canopy. Modules can be adapted to the street, city identity and passenger flow.

- Compact module
- Integrated shelter
- Rapid deployment





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CITY & INFRASTRUCTURE

Logos & 3D Lettering

Concrete lettering, city names, wayfinding signs and branded objects. The solid material creates a durable landmark in open space.

— Outdoor use

— Lighting and color

CITY & INFRASTRUCTURE

Urban Site Elements



Bins, tree grates, bollards and other elements form a coordinated collection. A shared texture makes the landscape design feel cohesive.

CITY & INFRASTRUCTURE

Street Infrastructure

Bicycle racks, planted modules, information pylons and street elements. Digital production maintains one design language across different typologies.



CITY & INFRASTRUCTURE

Amphitheaters & Skateparks

Steps, curved edges and seating tiers create a coherent concrete landscape. 3D printing is especially useful for curved segments.

— Complex radii



Chapels

Memorial and sacred structures with a strong vertical presence and sculptural details.

- Custom architecture
- Monumental texture
- Integrated memorial space



PRINTED TEXTURE IS AN ARCHITECTURAL LANGUAGE

A typical printed layer is approximately 13 mm high, creating fine relief and a living play of shadow.





NEXT STEP

LET'S DISCUSS YOUR PROJECT

Send us your plan, dimensions, site photos or a reference.
We will propose a design and the next steps.

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