



ELEMENTUM
SURFACES

Econiclay™

Green Technology & Innovative Building Materials

Presentation Index

1. Introduction Videos - P.3
2. Key Advantages - P.4
3. Sustainability - P.5
4. Durability - P.6
5. Versatility - P.7
6. Interior Renovation - P.8-10
7. Exterior Renovation - P.11
8. New Built Installation - P.12-15
9. Cost Comparison & Breakdown - P.16-17
10. Material Comparison & Analysis - P.18-19
11. Certifications & Awards - P.20-21
12. Projects Showcases - P.22-32
13. Finishing & Cornering - P.33
14. Showroom Video - P.34
15. Contact Info - P.35

What's Econiclay™

All Natural

Durable

It is a new material that designers are looking for

Versatile

This is a new type of decoration material.

Econiclay Key Advantages



**All Natural Material
100% Sustainable**



**Durable & Functional
Worldwide Patents & Certifications**



**Saves 50% Time
On Installation & Labor***



**30-Year Limited Warranty*
50-Year Lifespan Maintenance-Free** (Lifespan)



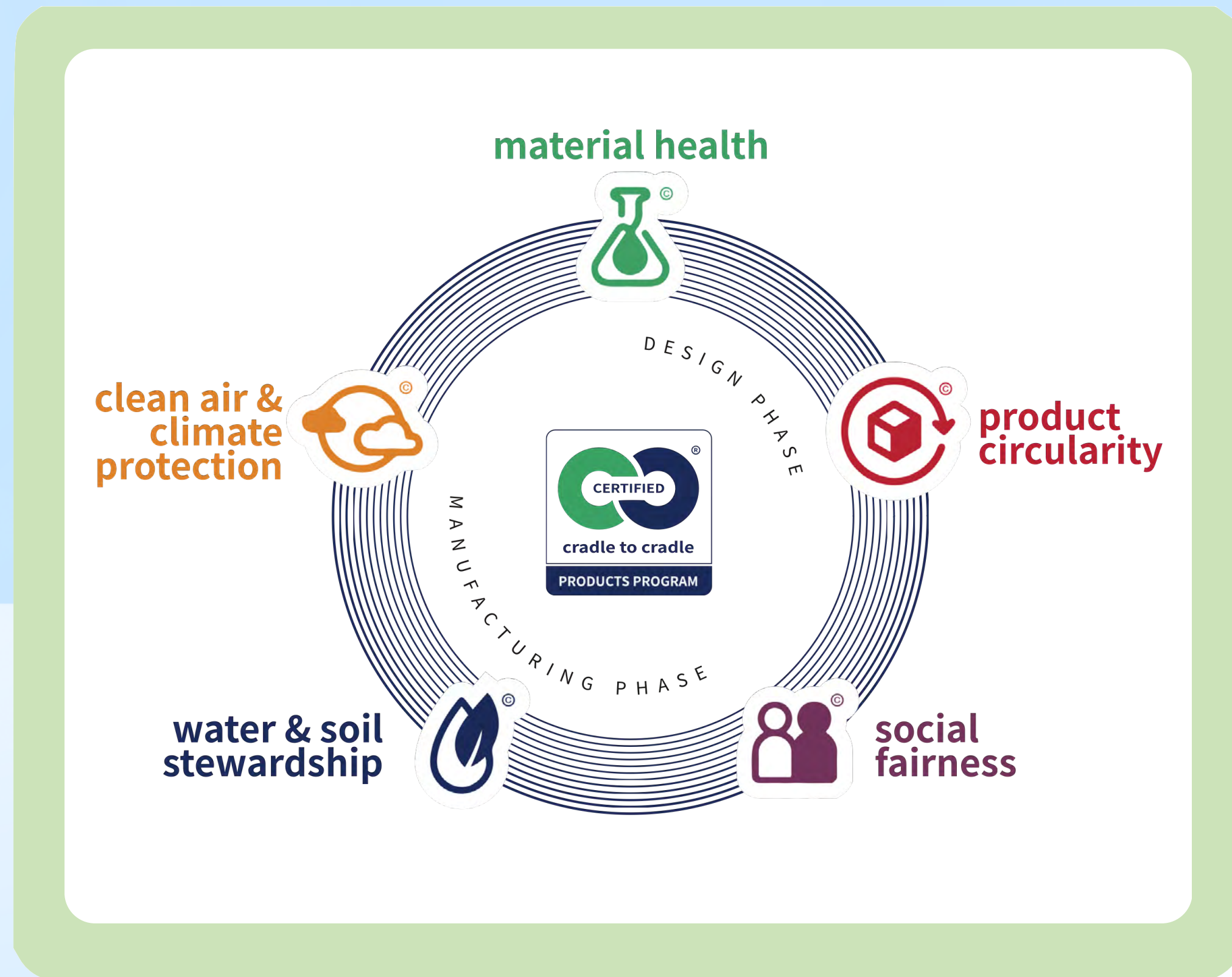
**Safer Material & Healthier Living
With Air Purifying & Negative Ion
Release Technology***



Raw Materials of Econiclay

Sand, Clay & Stone

All Natural Material - 100% Sustainable



Econi**Clay** products comply with “**Cradle to Cradle**” advanced material certification standards. Using raw materials as **Stone, Clay, & Sand**, Econi**Clay** is an all natural alternative to standard surface covering materials.

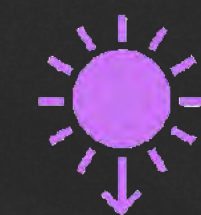
Econiclay Durability



FIRE RESISTANT (A1)



WATER RESISTANT



UV RESISTANT



WEATHER RESISTANT



SHATTER RESISTANT



MILDEW RESISTANT



SCRUB RESISTANT



ANTI-CORROSION



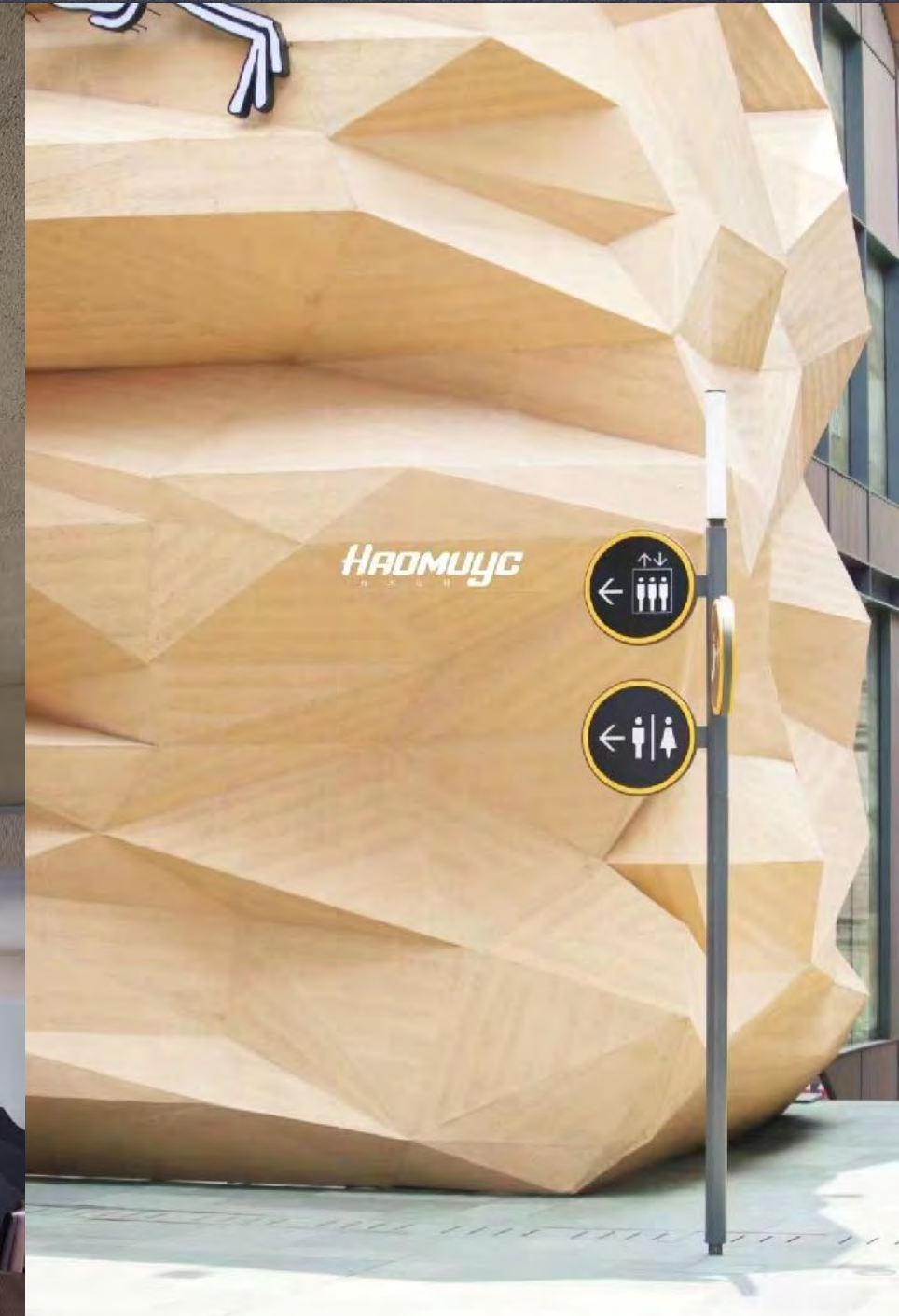
ANTIVIRAL (OPTIONAL)



EARTHQUAKE TOLERANT

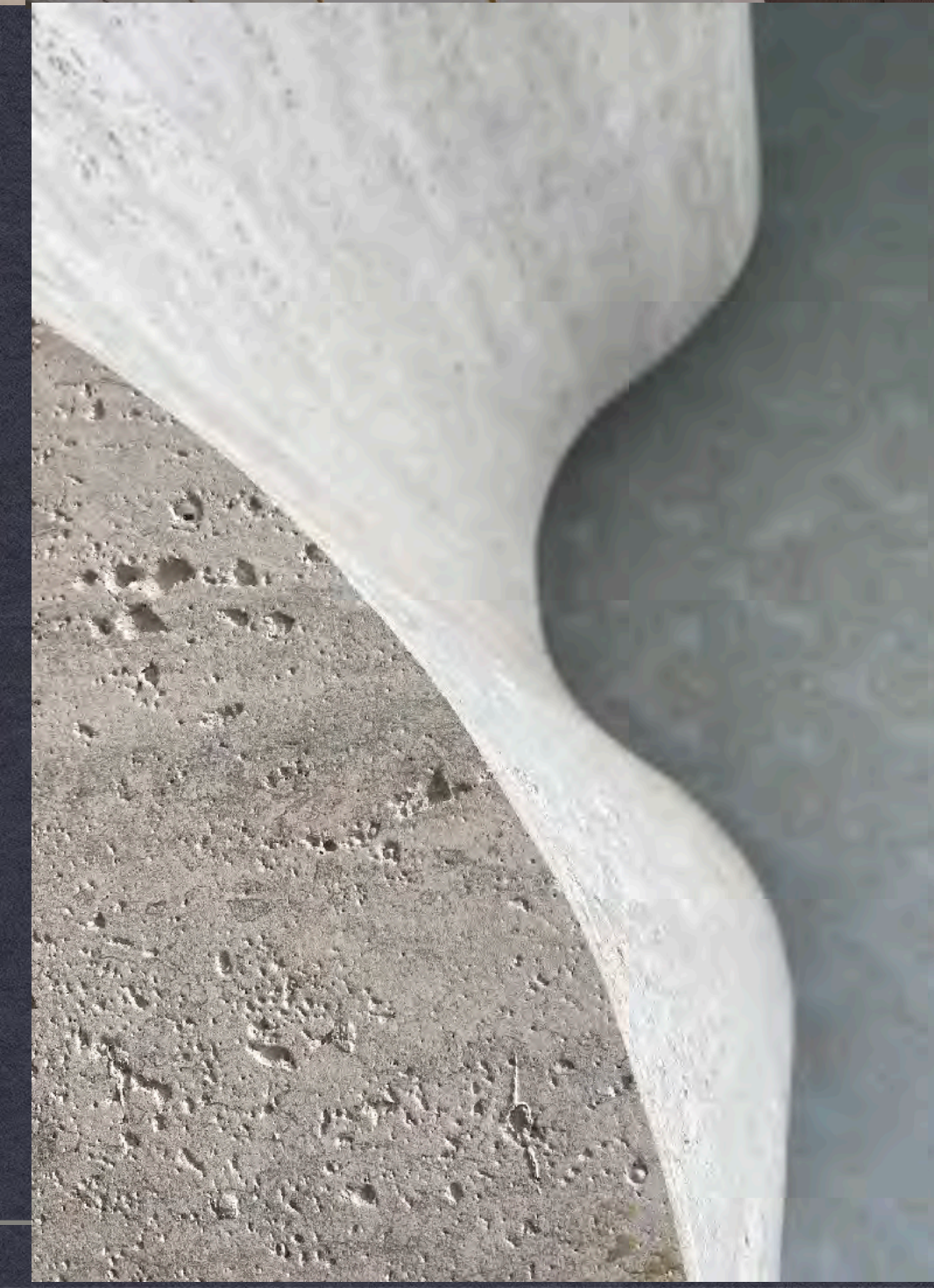


Econiclay Versatility



2' x 4' & 4' x 8'-10'
2-8 mm Thickness
Only 0.75 lb per ft²

Designed to bend
with your vision
— flexible, lightweight,
and perfect for curved
surfaces, opening up
endless design potential



Interior Installation Specifications - Saves 50% Time On Installation & Labor

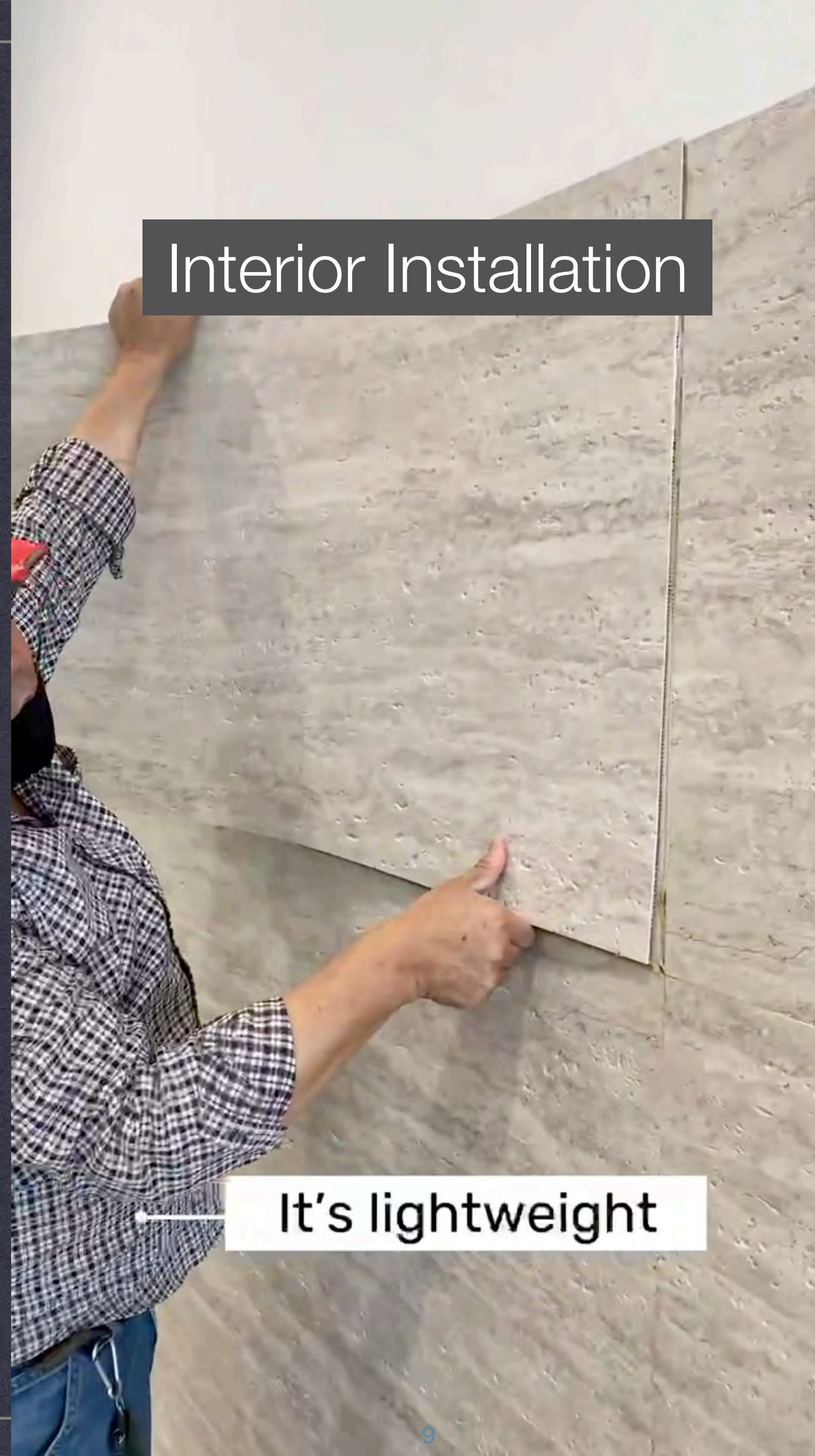


NO Demolition - Directly Install on any Hard Surface With Construction Adhesive

Interior Quick & Easy Installation

Construction Adhesive
For Interior

Thin-Set Mortar
Application for
Shower & Wet Area



Interior Installation

It's lightweight



ECONICLAY
SHOWER
APPLICATION

Interior Renovation



LIQUID NAILS

PANELING
WOOD & FOAM MOLDING ADHESIVE

HOW TO USE



1. Surfaces must be clean, dry, and structurally sound.



2. Cut cartridge tip to desired bead size & puncture foil seal inside tip of cartridge.



3. Insert into cartridge gun.



4. Apply bead to one surface, press surfaces together within 20 minutes.



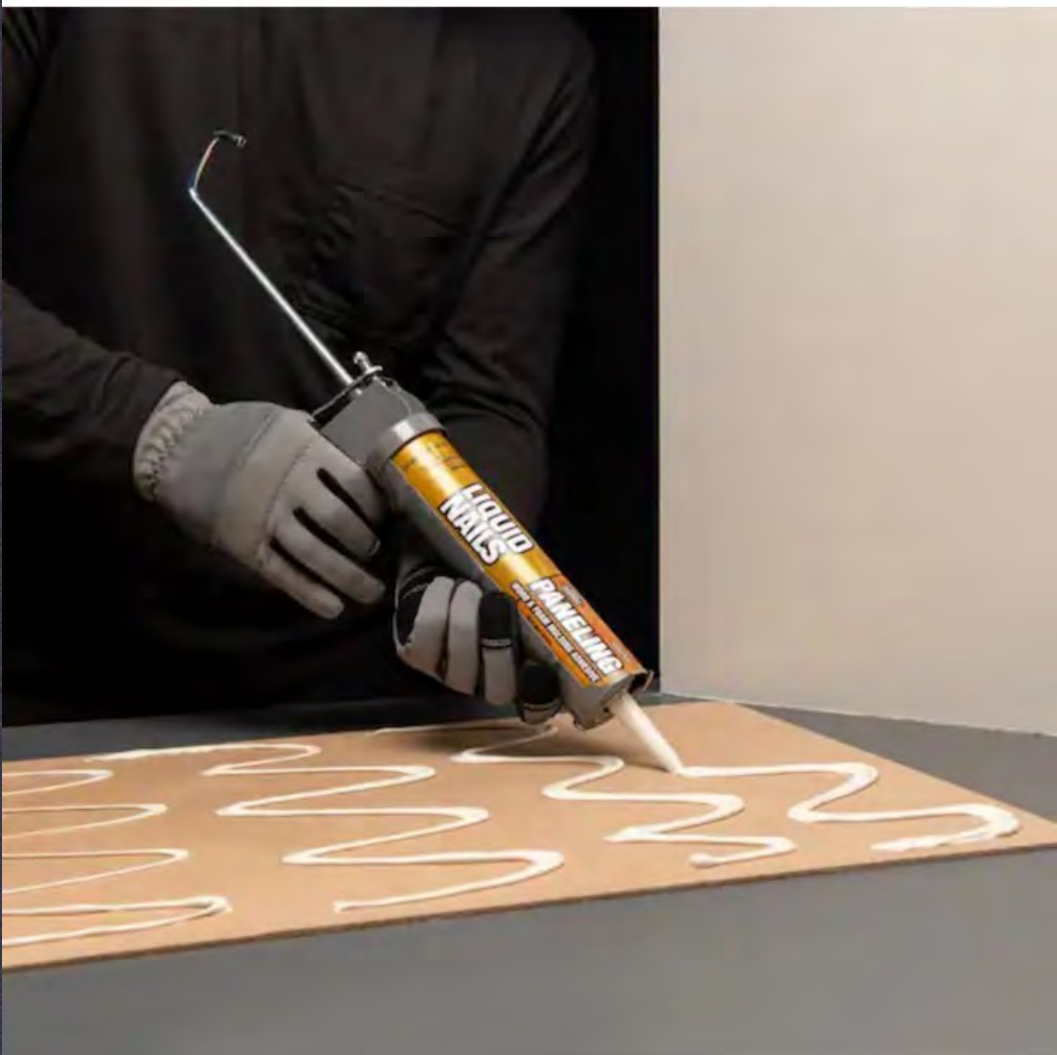
5. Minimum Cure Time: 24 hours



Please refer to the Product Label, Technical Data Sheet (TDS) or Safety Data Sheet (SDS) for detailed application and safety instructions.



Reduces Need For Nails & Screws



Exterior Renovation



Epoxy-Based adhesives or
S1 Adhesives for Smooth,
Non-Porous Surfaces



NO Demolition - Directly Install on any Stable Substrate With Thin-Set Mortar

New Built - Replacing Stucco

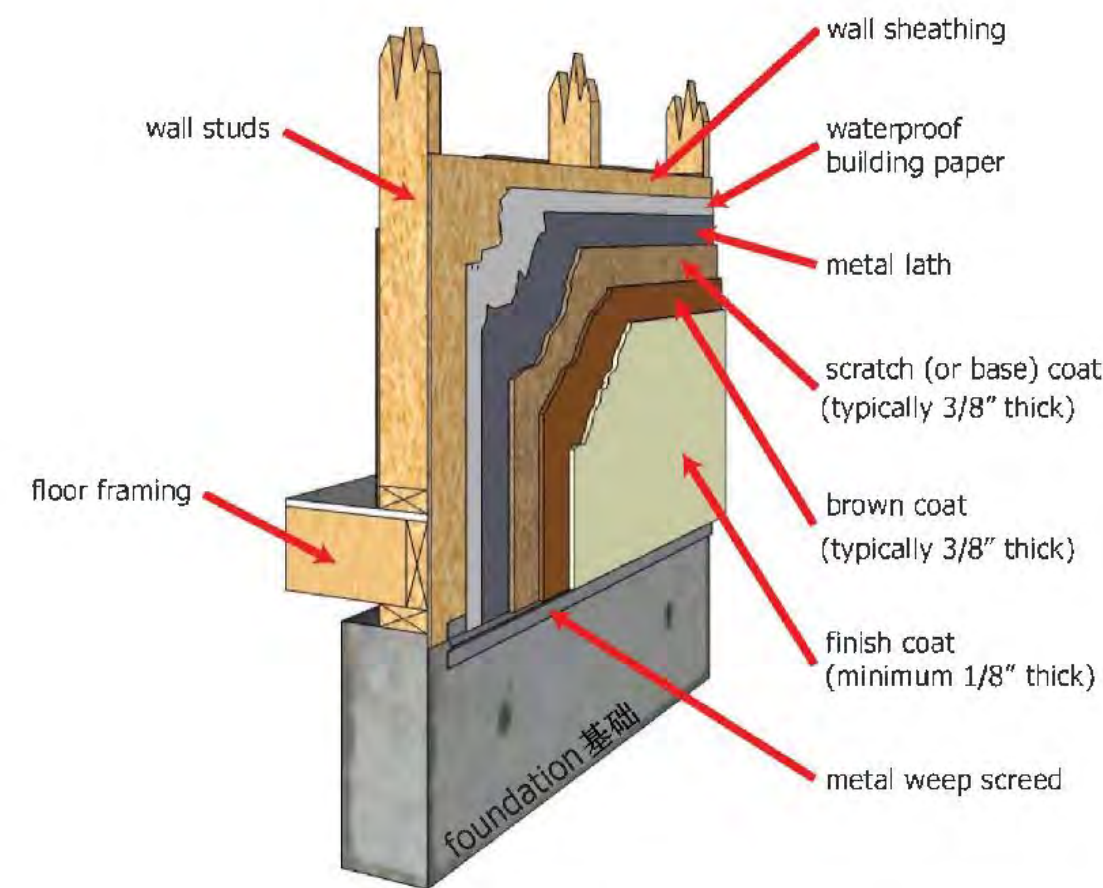
Traditional
Finish

EconiClay Combo

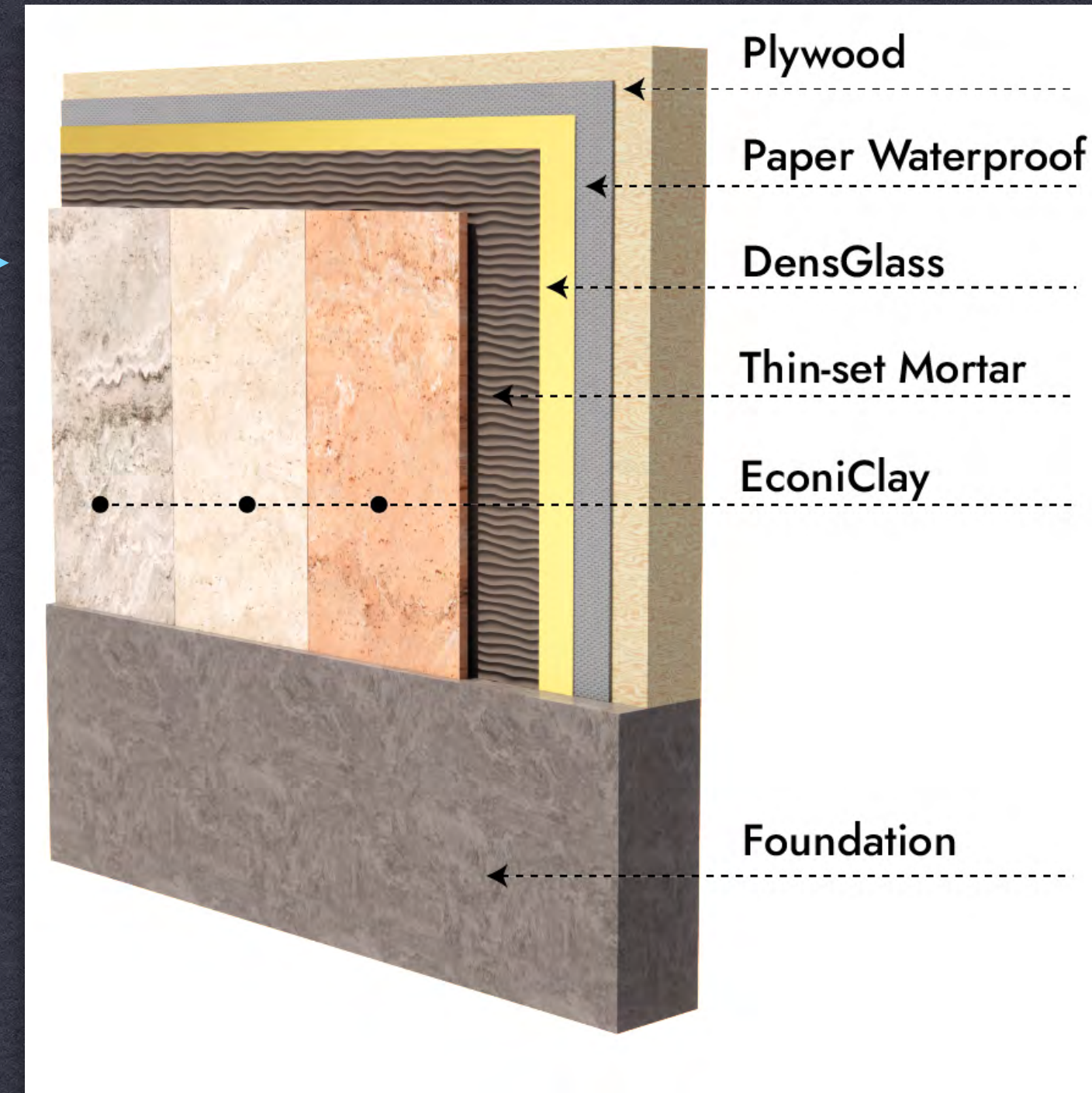
1. Paper Lath
2. DensGlass
3. EconiClay



Converting To EconiClay Combo



- **3X More Water Resistant**
- **Reduces Additional 1.8 – 3.6° F Indoor Temperature**
- **Upgraded Facade**
- **No Maintenance**



NO Netting, **NO** Scratch Coat, **NO** Base Coat, **NO** Brown Coat, **NO** Finish Coat, **NO** Painting

More Effective Method for New Built - Saves 50% Time On Installation & Labor



Traditional
Stucco Prep



Traditional
Finish

NO Netting, **NO** Scratch Coat, **NO** Base Coat **NO** Brown Coat, **NO** Finish Coat, **NO** Painting



+



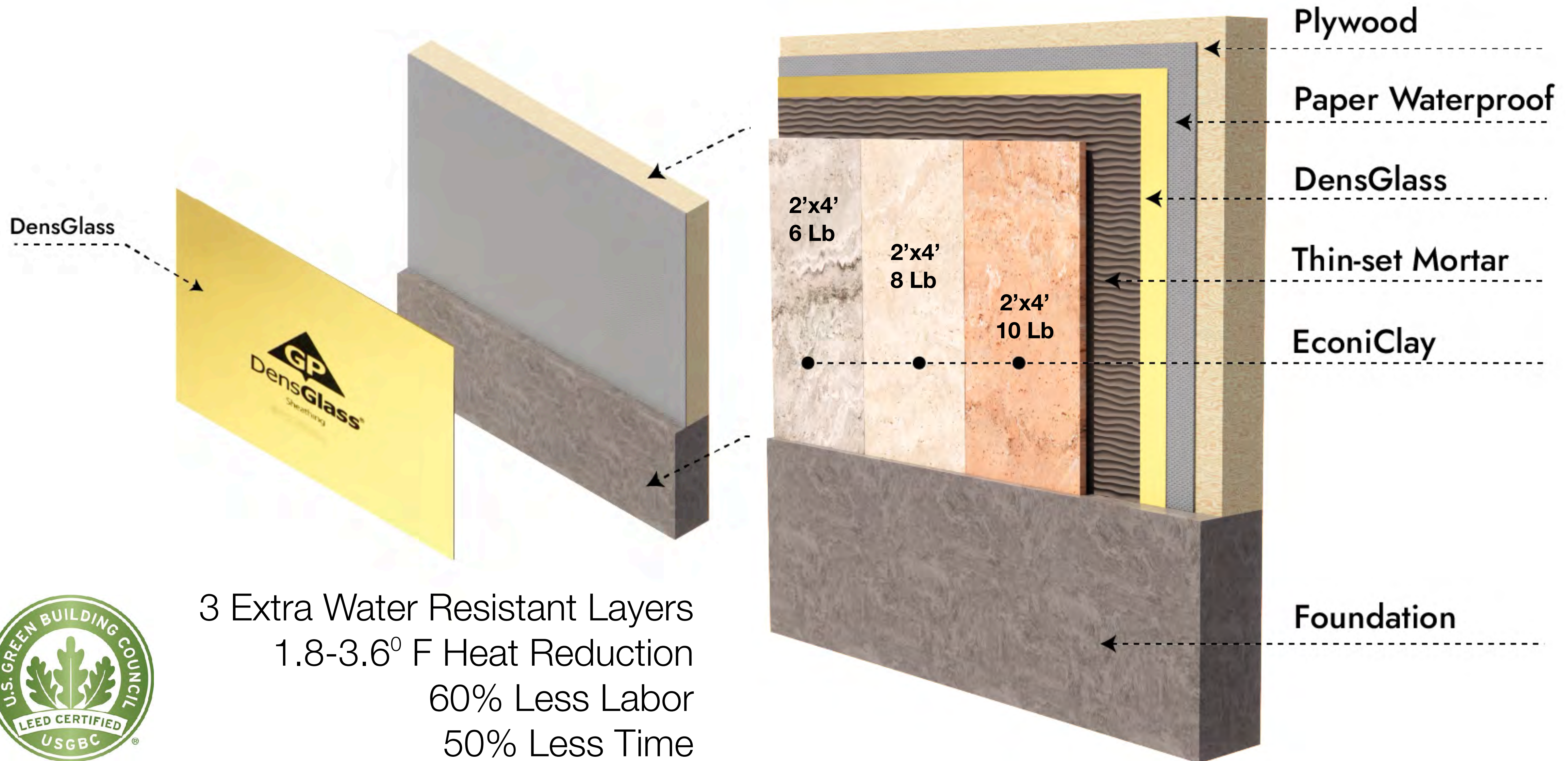
EconiClay

* Minimizes Downtime – No Weather Delays, No Crew Rotation, No Permit Waits, Less Cleanup (save approx. \$500-\$1000/house)

* Enhances Labor Safety – Minimizes Worker Comp Risks, Safer Installations, Less Dust

Exterior Installation Specifications

Easy Step = 1. WRB + 2. DensGlass + 3. EconiClay



3 Extra Water Resistant Layers
1.8-3.6° F Heat Reduction
60% Less Labor
50% Less Time





**Rethink Tradition.
Redefine Surfaces.**

**Natural &
Eco-Friendly**

**Light-Weight &
Earthquake Tolerant**

**Enhanced Water
Resistance**

**Improved Heat
Insulation**

**Cleaner Environment
Better Surface
Safer Material
Healthier Living**

Econiclay Cost Comparison

Indoor & Outdoor

Econiclay Average \$6-\$15/ft²*

vs

Stucco, Tiling & Sidings Average \$10-\$28/ft²*

Labor & Material Inclusive

*Base on Qty of 3000-30,000 ft²



Econiclay Exterior Comparison Data

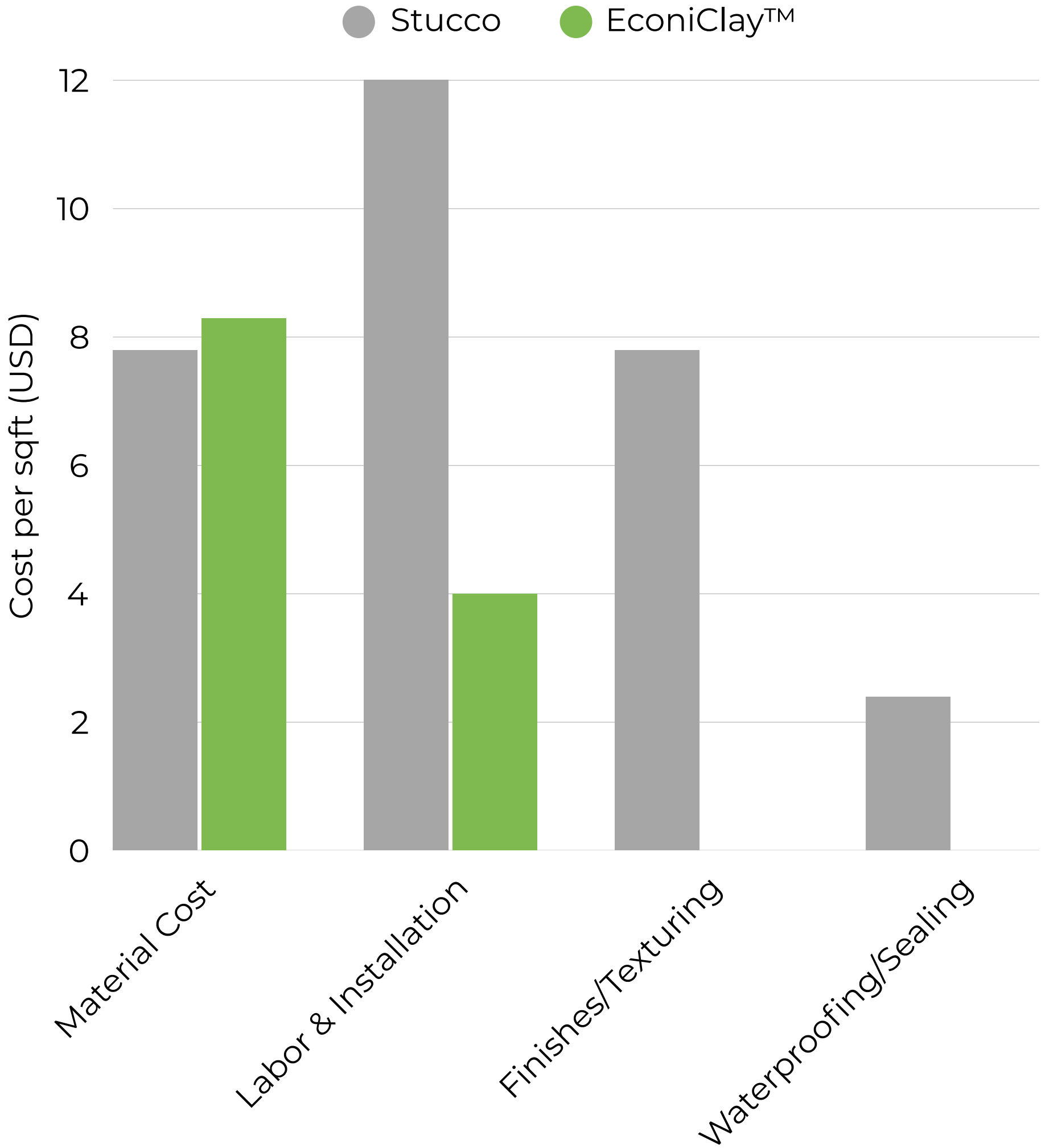
Cost Breakdown Analysis – Exterior EconiClay™ vs. Traditional Stucco

Econiclay Average **\$6-\$15/ft²** vs Stucco, Tiling, & Siding Average **\$10-\$28/ft²**

CATEGORY	TRADITIONAL STUCCO		ECONICLAY	
MATERIAL COST	\$3.60 - \$12.00 / sqft	\$	\$3.60 - \$12.99 / sqft	\$
LABOR & INSTALLATION	\$6.00 - \$19.00 / sqft	\$\$\$	\$2.00 - \$6.00 / sqft	\$
PREPARATION NEEDED	MESH, LATH, BASE COATS, BONDING AGENT	\$\$\$	MINIMAL; CAN APPLY DIRECTLY TO MOST SUBSTRATES	\$
FINISHES/TEXTURING	\$3.60 - \$12.00 / sqft	\$\$\$	NONE REQUIRED - BUILT-IN COLOR/TEXTURE	✓
WATERPROOFING/ SEALING	+\$1.20 - \$3.60 / sqft	\$\$	NONE REQUIRED - NATURALLY WATER RESISTANT	✓
SCAFFOLDING/ LOGISTICS	OFTEN REQUIRED FOR EXTENDED PERIOD OF TIME	\$\$\$	REDUCED TIME LOWERS SCAFFOLD/LOGISTIC COST	\$
TYPICAL TOTAL COST	~\$10.80 - \$27.00 / sqft	\$\$\$	~\$5.60 - \$18.99 / sqft - BASED ON QTY OF 30,000 ft2	\$

Key Cost Advantages of EconiClay™

- Labor efficiency: Faster installation can **cut labor costs by up to 60%** compared to stucco.
- No add-on costs: Eliminates expenses for finishes and waterproofing.
- **Lower total project cost:**
Even at the high end, EconiClay™ stays competitive with mid-range stucco installs.
- No Stucco Dip to clean off.



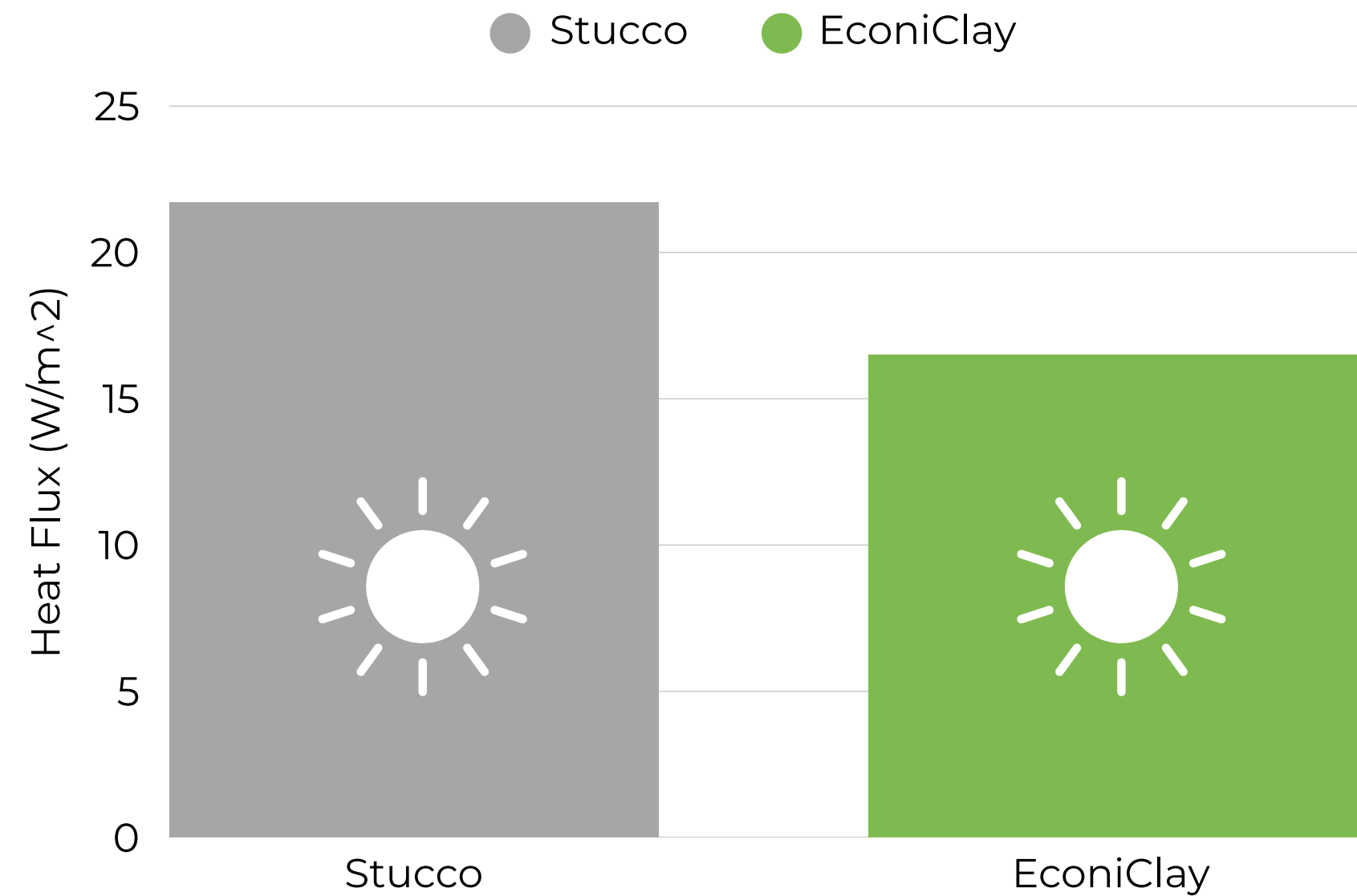
Econiclay Exterior Comparison Data

Thermal Comparison – Exterior Econiclay™ vs. Traditional Stucco

Findings show that Econiclay™ significantly improves indoor comfort, reduces water-related failures, and uniquely contributes to better indoor air quality via negative ion release.

- Assumptions:**
- Outdoor air: 35°C (95°F); Indoor: 24°C (75°F)
 - Solar irradiance: 900 W/m²; Outdoor h: 15 W/m²·K
 - Wall R-value: 2.30 m²·K/W (~R-13)
 - Reflectance: Stucco 0.35, Econiclay™ 0.55

- Results:**
- Surface temp: Stucco 165.2°F vs. Econiclay™ 143.6°F
 - Heat flux: Stucco 6.89 vs. Econiclay™ 5.24
 - Heat gain reduction with Econiclay™: 24.0%



***Simplified steady-state model. Does not account for transient effects (thermal mass), moisture, or infiltration.*

Thermal Insulation (R Values)

SYSTEM	ASSUMPTIONS	RESULT (US R-VALUE)
Stucco (7/8" thick)	k = 0.72 W/m·K t = 22 mm	R ≈ 0.18
Econiclay facing (3 mm)	k = 0.38 - 0.62 W/m·K t = 3 mm	R ≈ 0.03–0.05
Econiclay composite + 1" Rockwool	Rockwool k ≈ 0.036 W/m·K	R ≈ 4.0+
Econiclay composite + 2" Rockwool	Rockwool core	R ≈ 8.0+

Waterproofing & Moisture Behavior

PROPERTY	STUCCO (7/8")	ECONICLAY™	NOTES
Vapor permeance	≈15–30 perms (highly vapor open)	Breathable exact ASTM E96 TBD	Both require WRB behind finish
Water absorption	-Porous 8-15% can crack & absorb water	≈3–8.02%	Econiclay stable Flexible
Installation waterproofing	Rockwool k ≈ 0.036 W/m·K	Flexible Sheets, Seamless, Better water resistance	Reduces risk of cracking

Econiclay™ installation can **reduce indoor temperatures by 1.8–3.6 °F** compared to stucco, depending on climate zone and wall build-up.

Negative Ion Benefits
Independent lab results show Econiclay™ surfaces release negative ions in concentrations comparable to those found in a forest environment (~2,000 ions/cm³). This is equivalent to the exposure one would experience after an hour of walking.

Materials Comparison			
Feature	EconiClay™	Stucco	Tile
Eco-Friendliness	■ Sustainable & eco-friendly	■■■ Not eco-friendly	■■■ Not eco-friendly
Weight & Flexibility	■ Lightweight, bendable, fits curves	■■■ Heav, rigid, cracks	■ Heavy, rigid
Installation	■ Up to 75% labor savings	■ Labor-intensive	■ Slow & costly
Thermal Insulation	■ Lowers indoor temp 1.8–3.6°F	■ Poor insulation	■ Minimal insulation
Water Resistance	■ Waterproof, mildew resistant	■ Absorbs 15–25% water, mold risk	■ Grout absorbs water, mold risk
Negative Ions	■ Releases negative ions	■ None	■ None
Durability	■ Scratch, scrub & color resistant	■■■ Cracks, needs repair	■ Grout maintenance
Safety	■ Fire-resistant, earthquake-safe	■■■ Cracks under stress	■■■ Rigid, may break
Water Absorption	■ 3–8%	■ 15–25%	■ Grout absorbs moisture
Warranty	■ 30-year warranty, 50-year lifespan	■■■ Requires frequent repair	■■■ Requires frequent maintenance
Design Options	■ Wide versatility	■ Limited finishes	■ Limited patterns/colors
Weight Ratio	0.75-1.0 lb per ft²	4-6 lb per ft²	4-6 lb per ft²
R-Value	1” with DensGlass Combo : R1.5-2.5	7/8” R 0.18	7/8’ R 0.55
Maintenance	NO	YES	YES on Grout
Healthiness	Negative Ion, Self-Cleaning & Odor Reduction	Not Available	Not Available

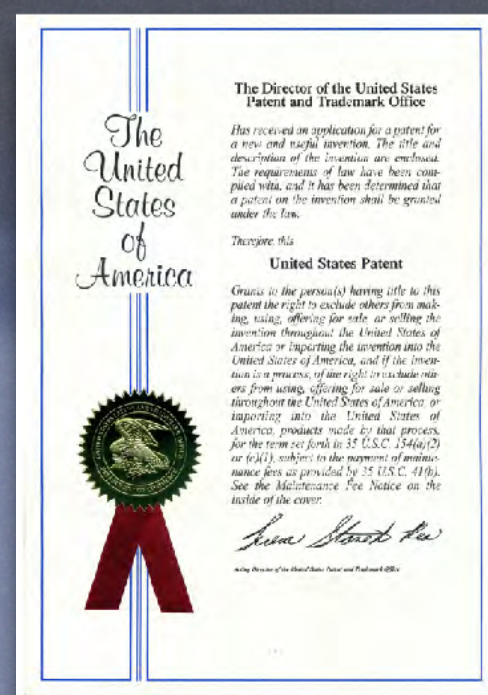
Carbon Footprint Verification

NEAR-ZERO CARBON FOOTPRINT

100% SUSTAINABLE

Econiclay™ is certified to be 100% sustainable and it produces near-zero carbon footprint during production process.

Global Patents



U.S Patent



EU Patent

BUREAU VERITAS

Certification

1828

Product Carbon Footprint Verification Statement

is awarded to

PHOMI HOLDING CO., LTD.

Verified product: Econiclay Covering

Functional/Declared unit: 1 m² Econiclay Covering and 1 kg Econiclay Covering (Size: 1200mm×600mm×3mm; Weight : 3.9kg/ m²; Packaging material weight: 118.8 g/m²)

System boundary: The life cycle (from cradle to grave) process GHG emission of 1 m² / 1kg Econiclay Covering produced in PHOMI MCM CO., LTD., including upstream raw material acquisition and production, raw material transportation, core production and downstream product transportation, product utilization and disposal process.

Reporting period verified: 1/1/2023 to 31/12/2023

Production Company: PHOMI MCM CO., LTD.

Production address: No.9 Zhijiang Road,Overseas Chinese Investment Zone, Laibin City, Guangxi Zhuang Autonomous Region,China

Re-verification conditions: Re-verification shall be applied when Greenhouse Gas emissions in life cycle of the product has 5% or more than 5% planned changes or has more than 10% unplanned changes, and these changes continue for more than 3 months.

Bureau Veritas Certification (Beijing) Co., Ltd.

certifies that above organization has conducted Greenhouse Gas verification of product carbon footprint in accordance with the requirements of the standard detailed below, and verification data are reasonable measurement and calculation.

ISO 14067: 2018

Greenhouse Gas emission in life cycle of 1 m² Econiclay Covering product (from cradle to grave): 1.02 kgCO₂e

Greenhouse Gas emission in life cycle of 1 kg Econiclay Covering product (from cradle to grave): 0.26 kgCO₂e

Statment No.: EMI21094621GZ-01

Lead verifier: Haoyu HUANG

Issue date: 13/3/2024

Version No.: NO.1

Verification date: 23-24, January, 2024

Expiry date: 12/3/2026

Signed on behalf of

Bureau Veritas Certification (Beijing) Co., Ltd.

Certification body address: Room 02, 9 / F, West Office Building 1, Oriental Economic and Trade City, Oriental Plaza, No.1 East Chang'an Street, Dongcheng District, Beijing, China. 100738

Further clarifications regarding the verification scope of this statement may be obtained by consulting the organization.

To check this statement validity please call: +86 10 59683888 or +86 20 83073800

Page 1 of 1

Worldwide Certifications



Global Awards



Arca Award



2024 Concours Lépine International Paris



112th Paris Invention EXPO Invention Award



iENA 2024 Certificate of Honour



UL GOLD CERTIFICATE OF COMPLIANCE



Outdoor Test Report



SINGAPORE GREEN LABEL CERTIFICATION



Fire-Resistant Test Verification

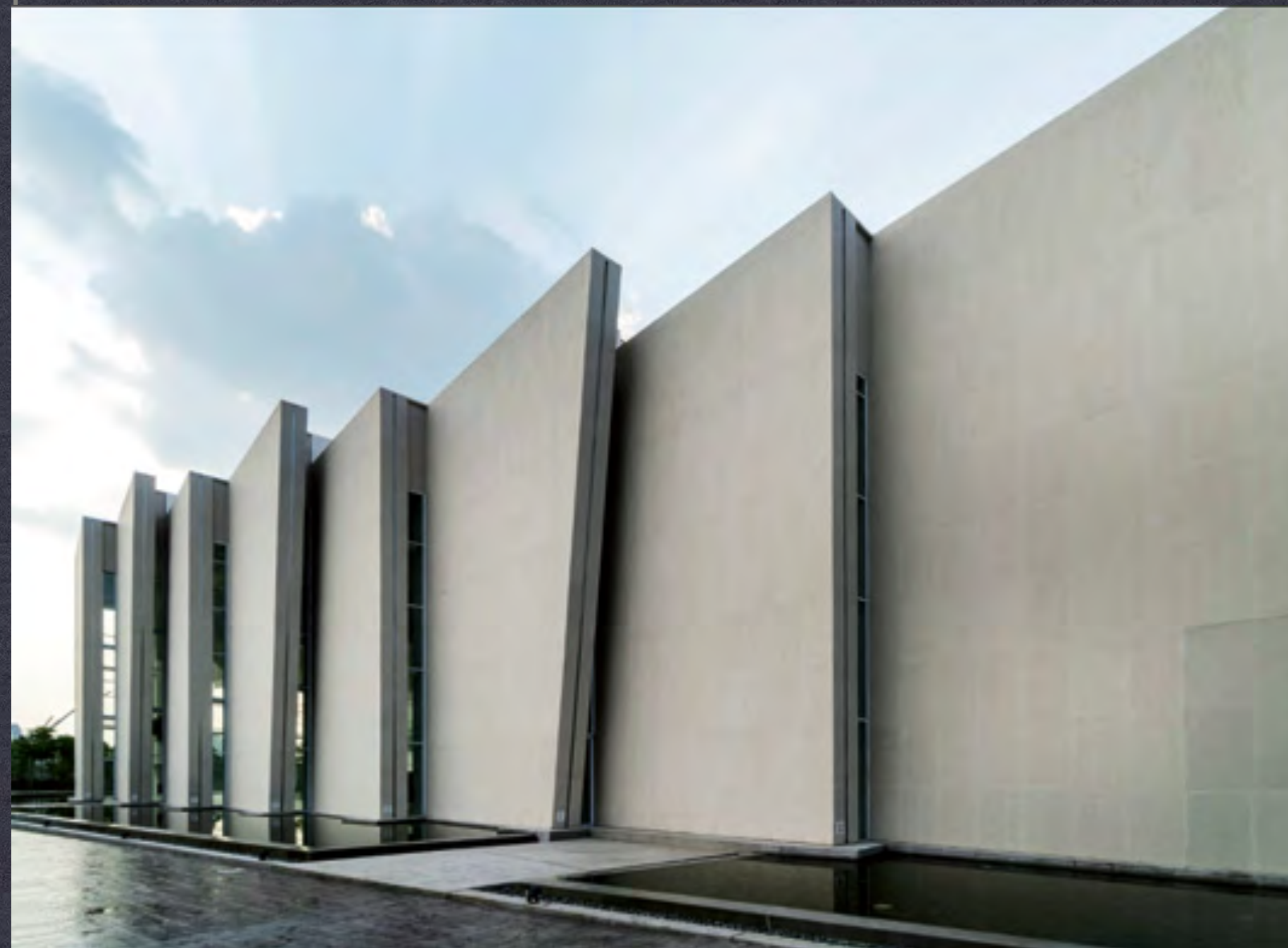


CE CERTIFICATE



Anti-Bacteria Test Report

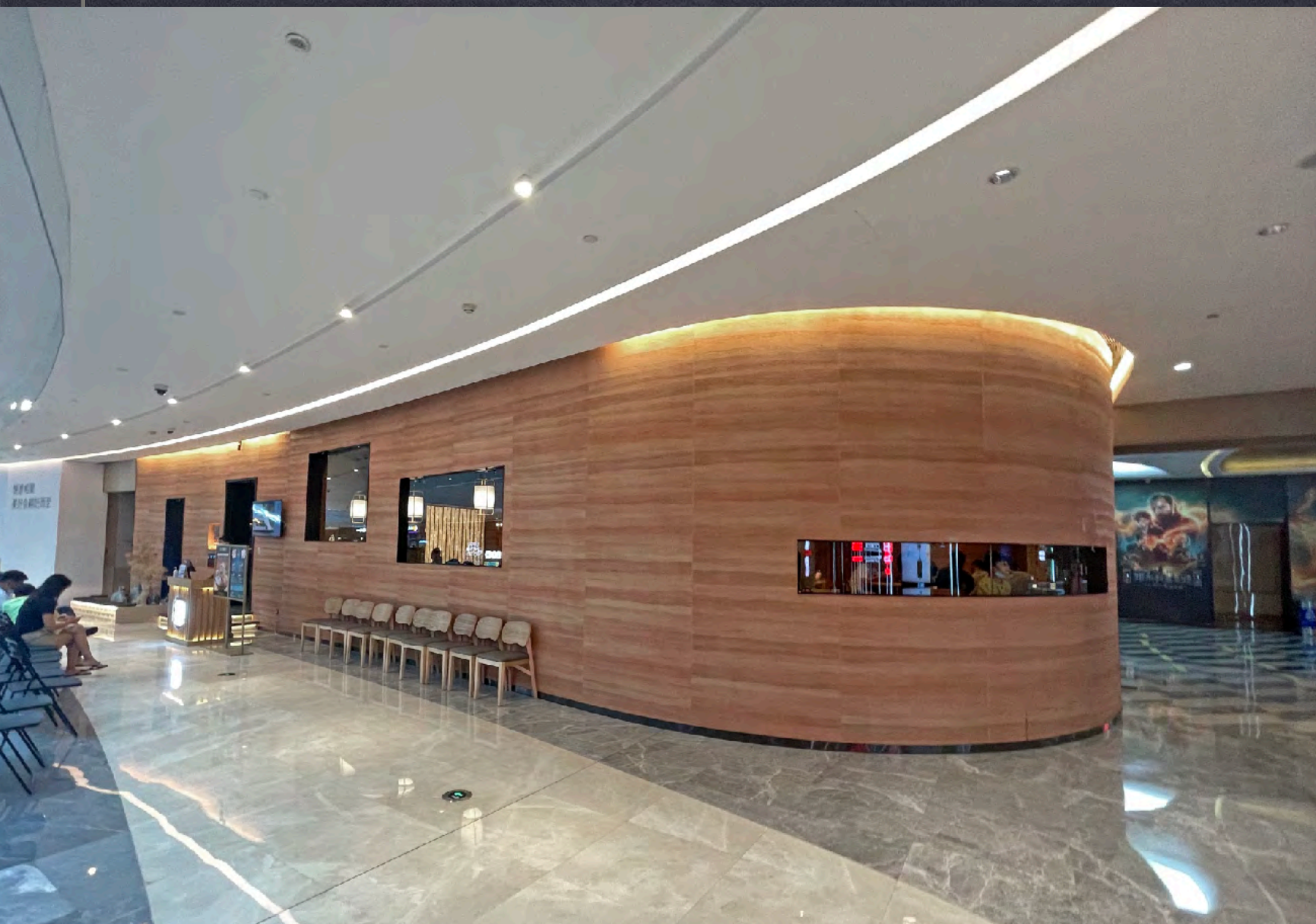
Public Building Projects



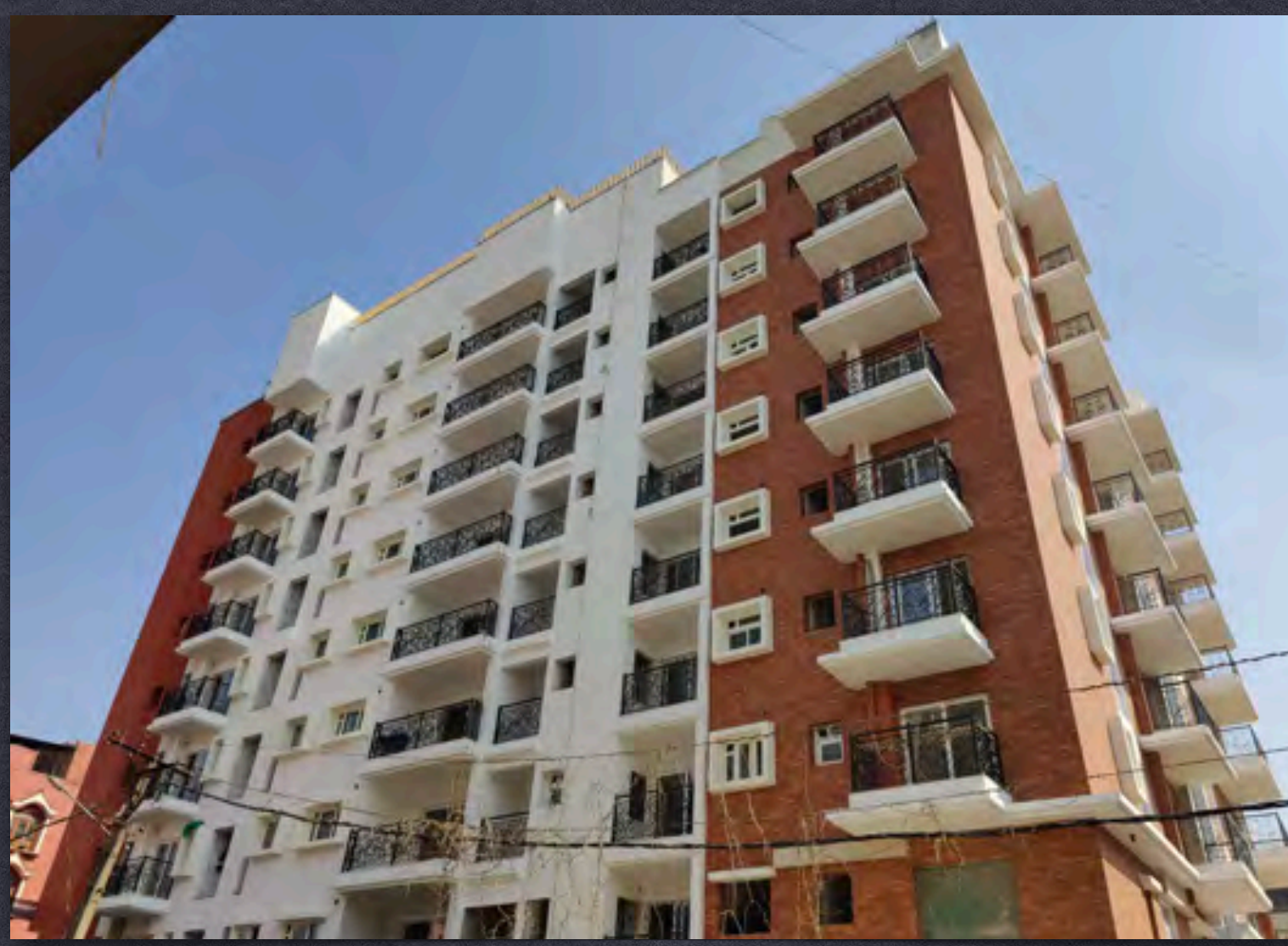
Hospitality Projects



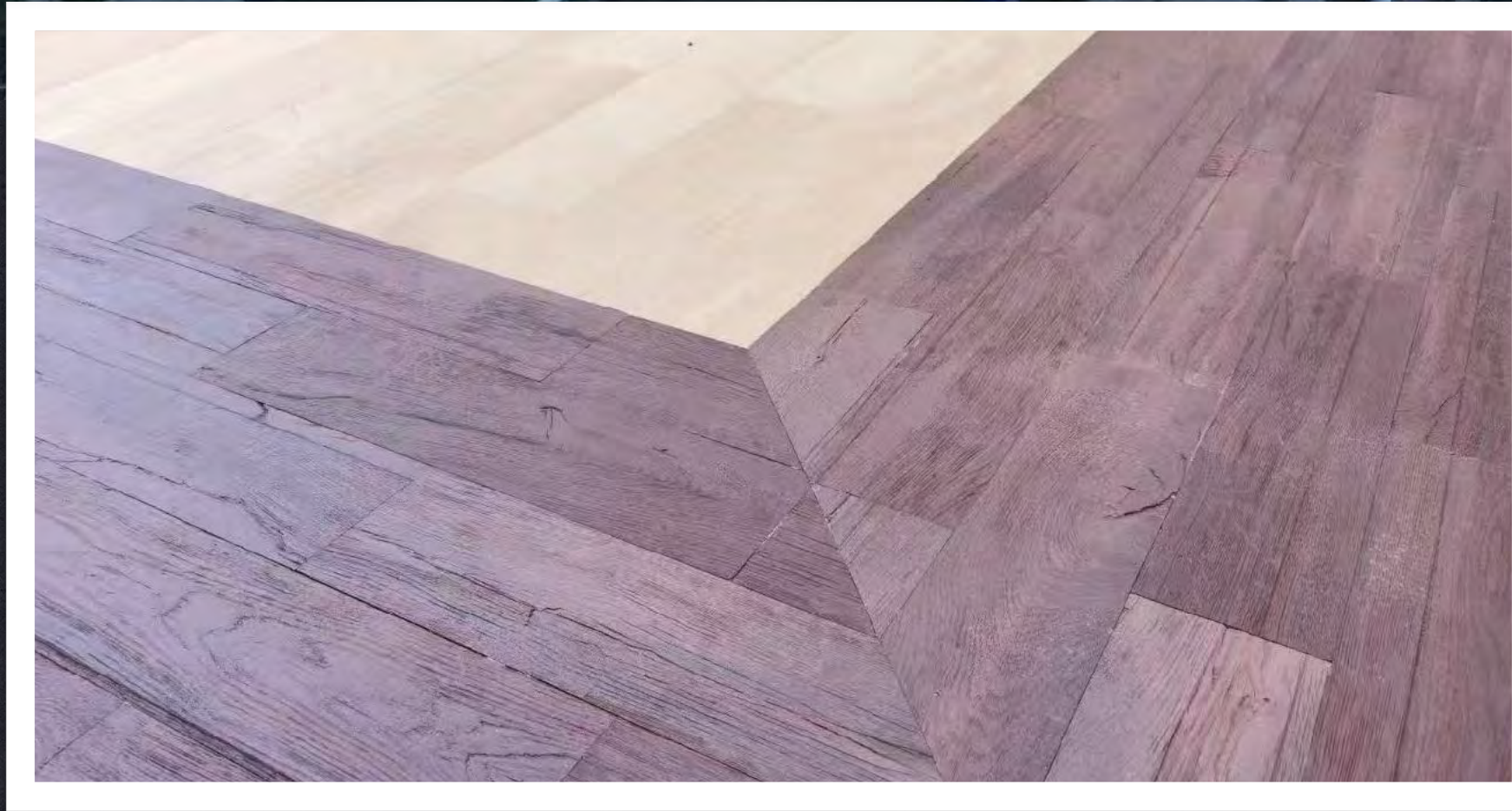
Commercial Projects



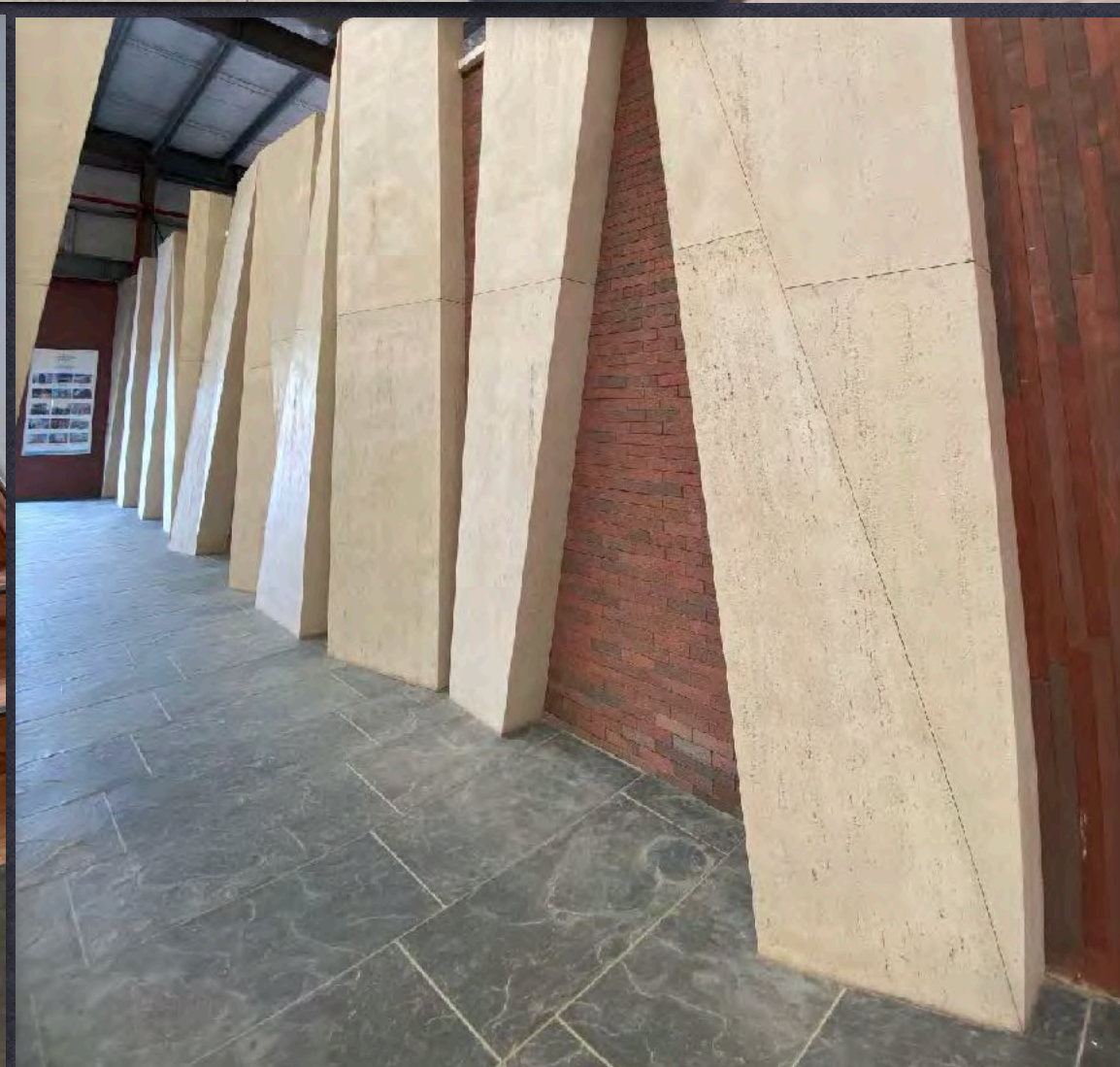
Residential Projects



Sports Facility Projects



Flooring Projects



Shower Projects



Authentic Feel, Anti-Slip & Quick Dry



Fireplace Projects



Direct Installation, Lightweight & Earthquake-Safe



Before



After

Retail Space Projects



Chicago Airport Hilton Resort Renovation Project

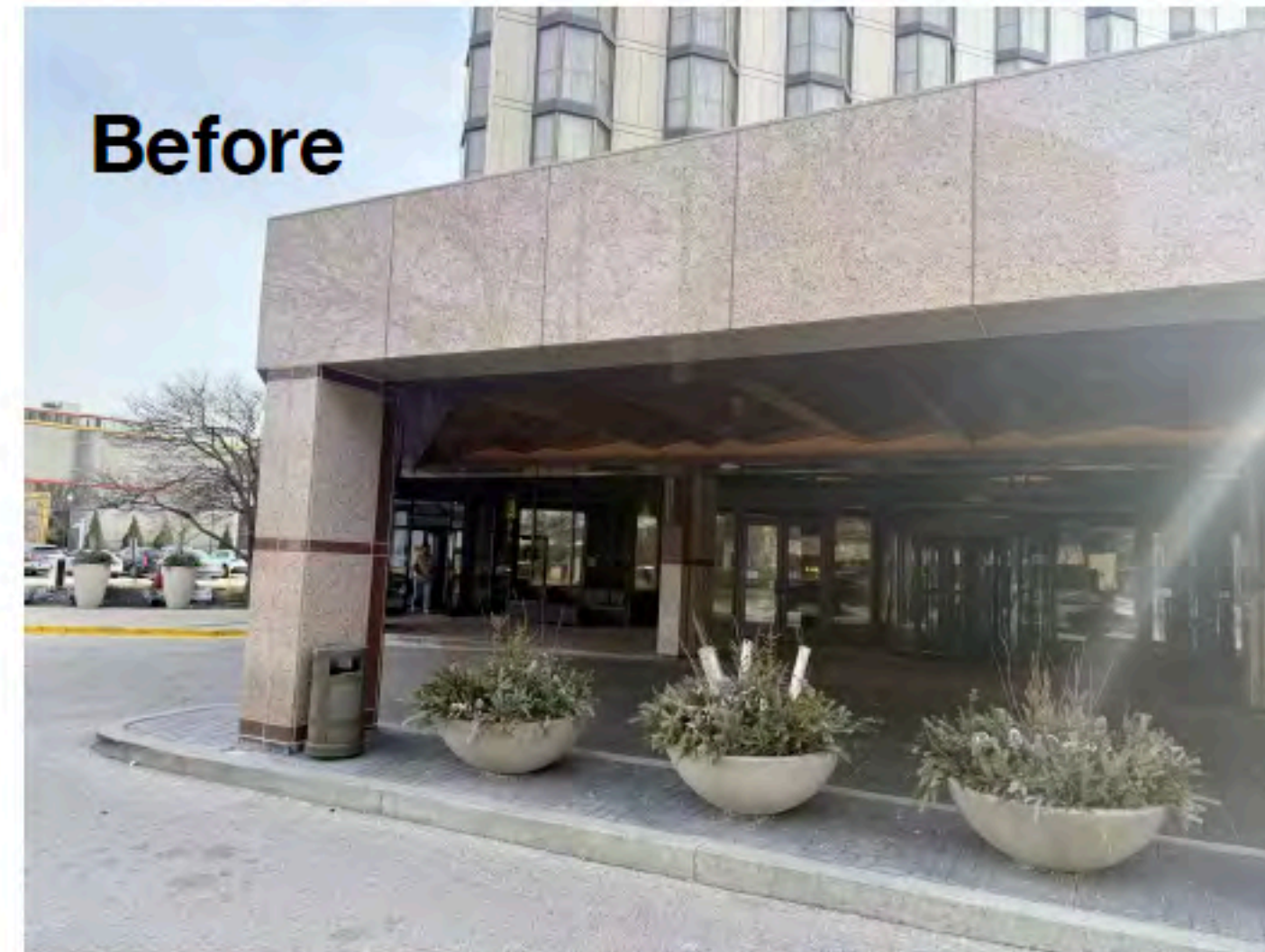
No Demo, Directly Wrap
Save over \$500,000 with Minimal Downtime



Before



After



Before



After

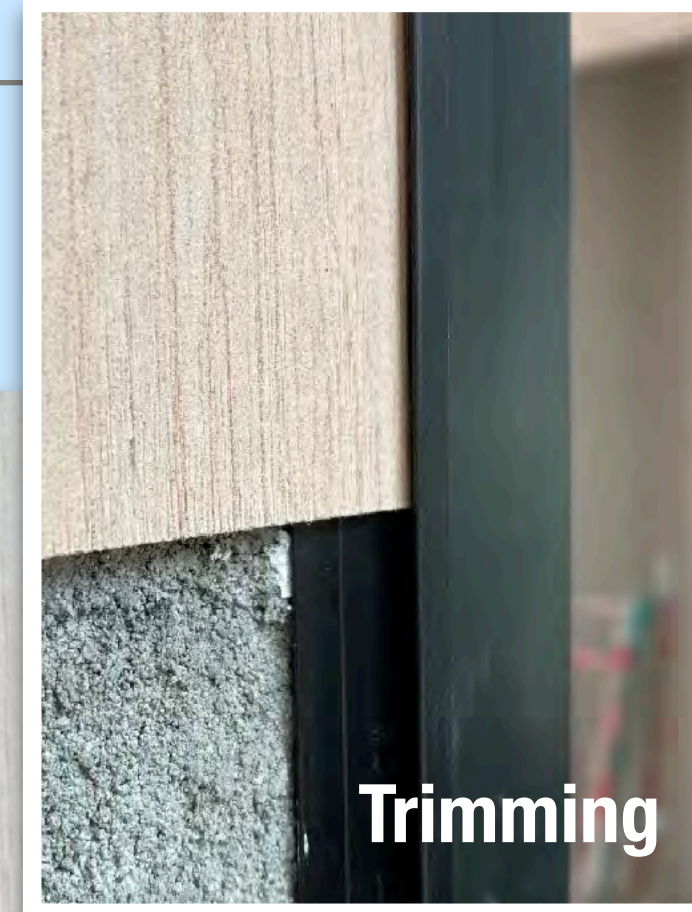


Before

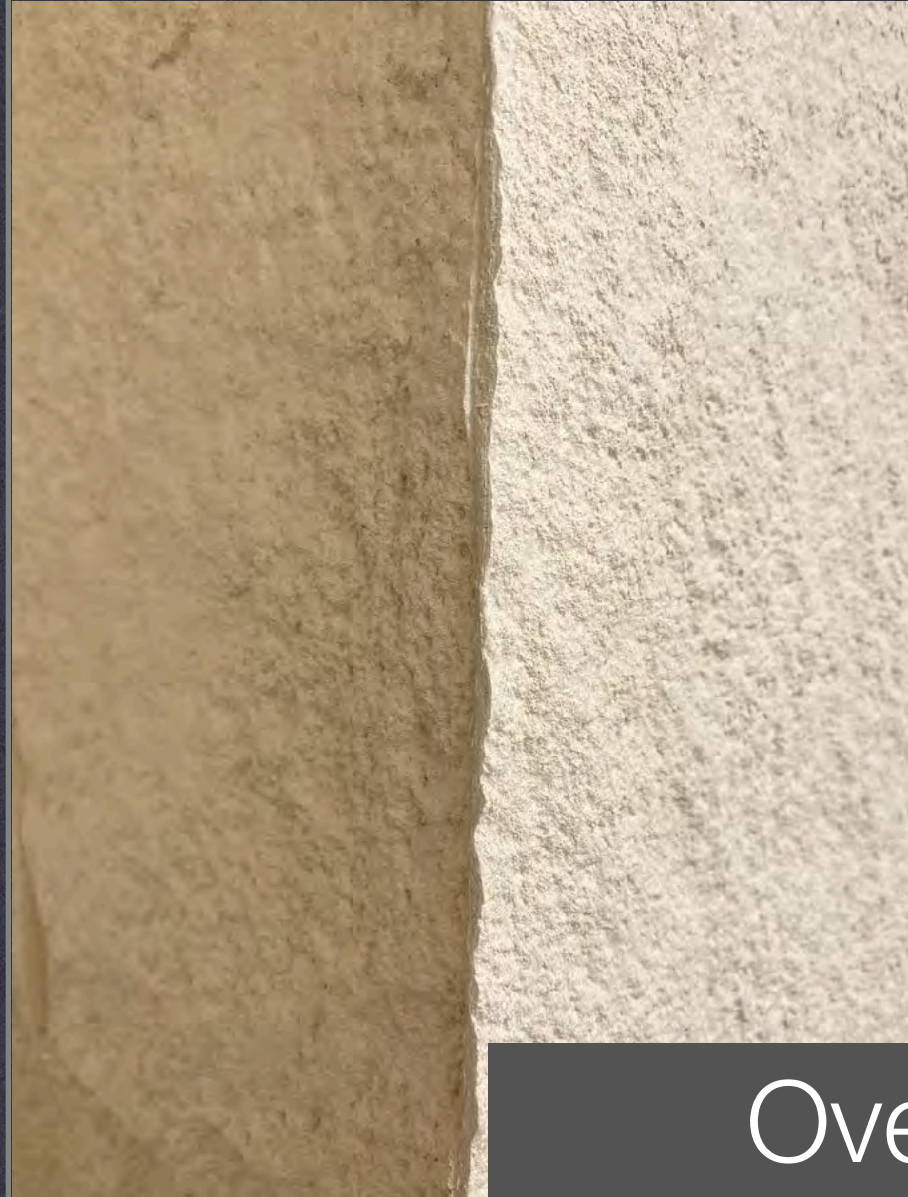


After

Downtown LA USC Student Co-Living Project - Exterior Facade



Finishing & Cornering (Metal Trims Available)



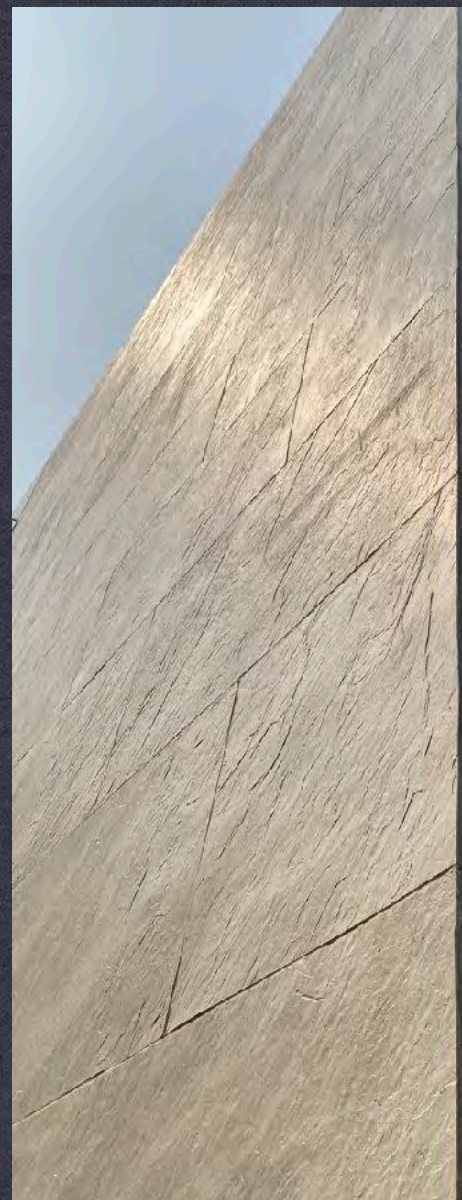
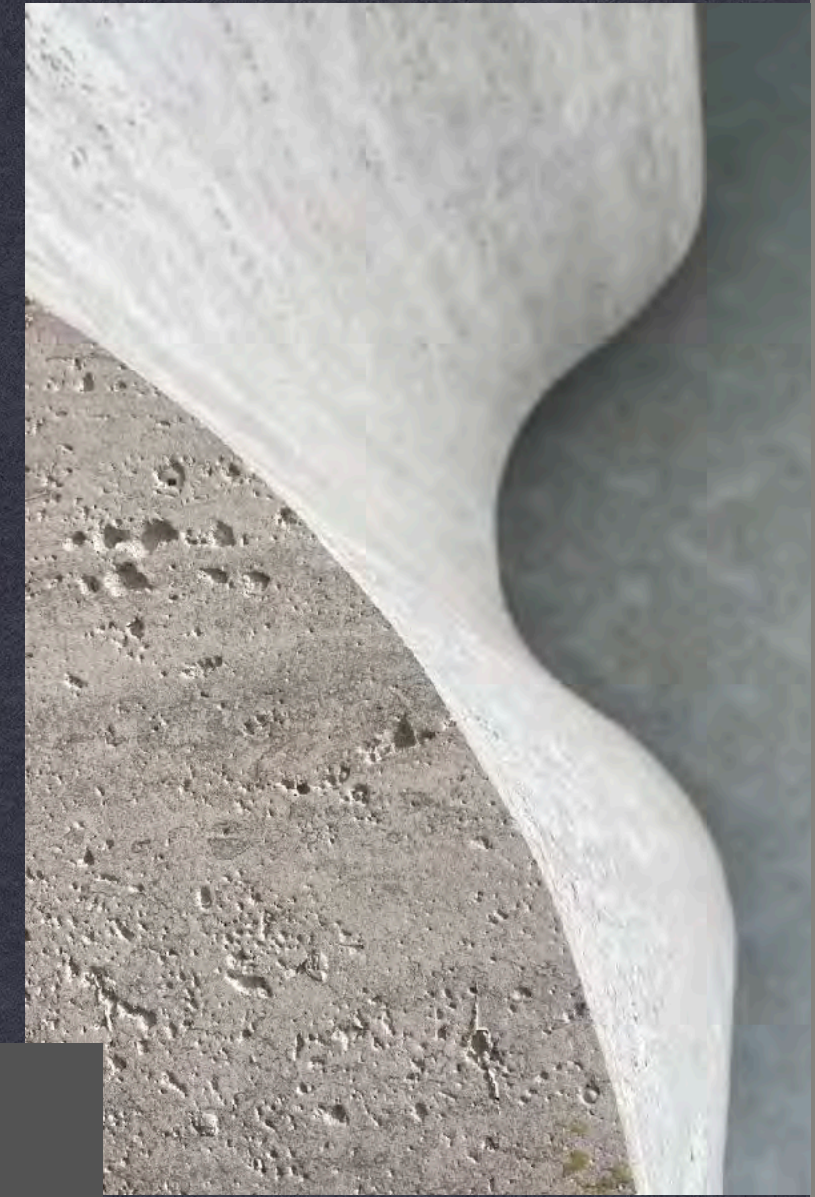
Overlap



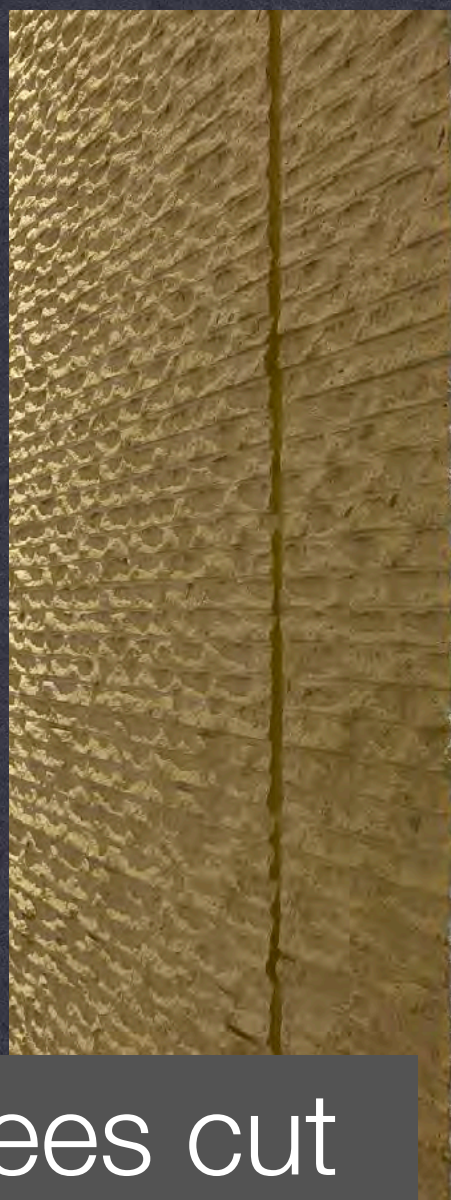
Straight



Caulked



45 degrees cut



Caulked



45 degrees cut





Elementum Surfaces Showroom, Walnut, CA



Elementum Surfaces™ Showroom

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