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Future talent
Conference

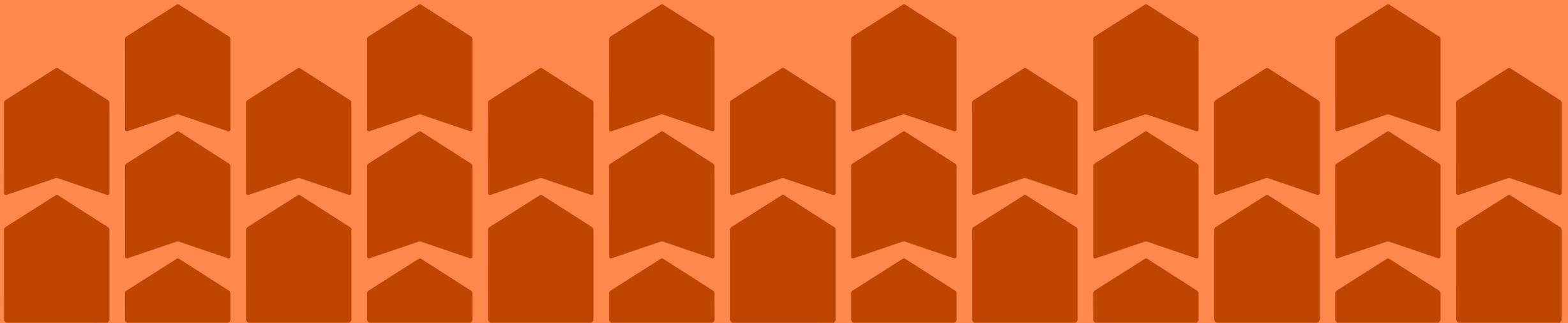
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Future Talent Conference

Technical Workshop



Rhodri Williams

Technical & Sustainability Director

Home Builders Federation

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Building Regulations Housetype Portfolio's Standard Details



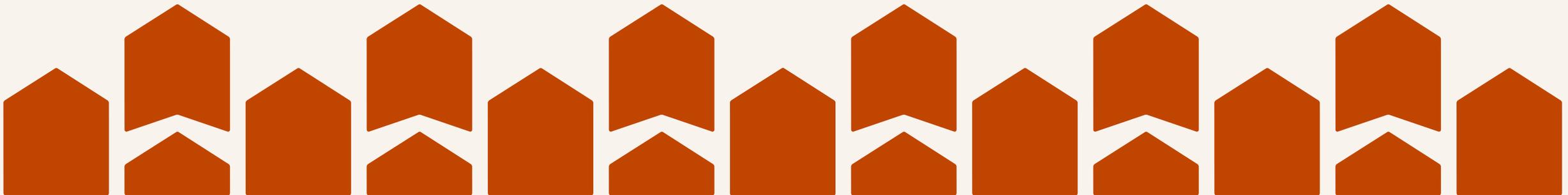
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Technical Department

Technical Department Purpose

A Technical and service provider, supporting all departments within your business from land through to customer care and final estate completion.

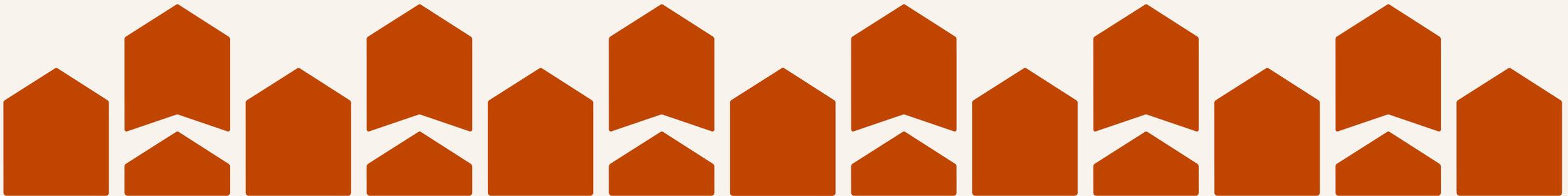
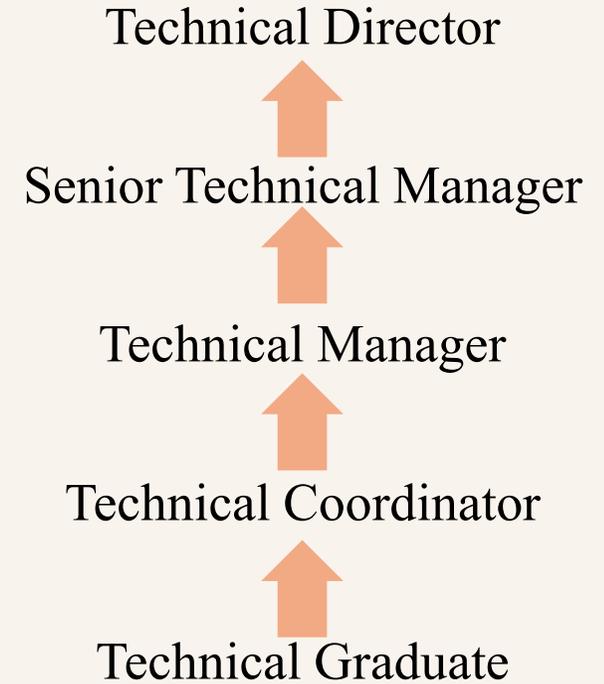
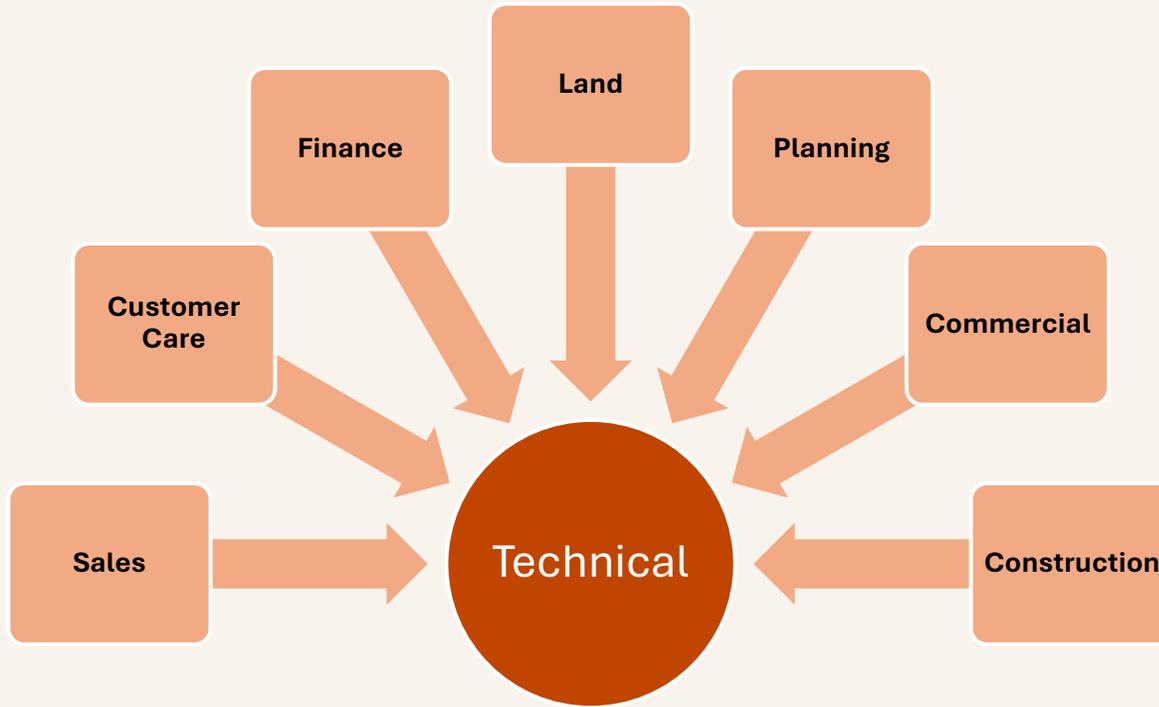
An information and service provider delivering the quickest, most effective and economical solutions to the standards required within your business including health & safety, quality and legal/regulatory requirements.



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Technical Department

Technical Department Career Pathway



Building Regulations



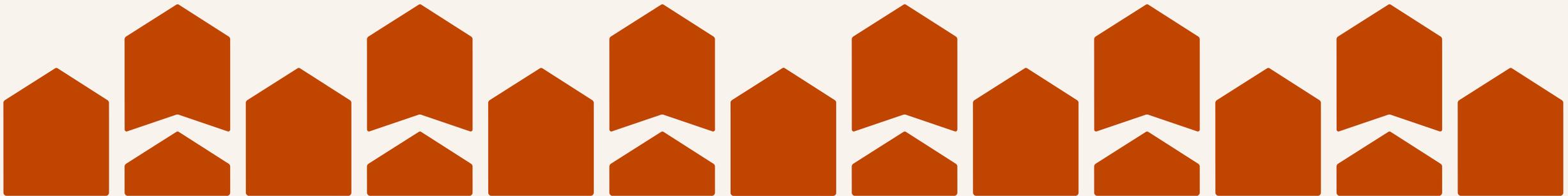
Building Regulations

Building Act 1984. Primary Legislation in England & Wales. It replaced older historic standards. Its purpose is to ensure the safety, health and welfare of people in and around buildings. It establishes standards for building design, performance, construction, structural stability, fire safety, and accessibility.

Building Regulations. Secondary Legislation. Statutory instruments written within the Building Act 1984. Legally binding requirements for building work, made under the powers of the Building Act which are monitored, approved and certified by Approved Building Inspectors (Building Control Authority).

Approved Documents. Guidance documents listed within Building Regulations and offer detailed, practical ways to conform with ‘the Building Regulations’.

Building Safety Act 2022. New and updated primary legislation following the Grenfell Tower fire placing greater requirements on design, construction, fire standards, materials and competence.



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Building Regulations



Approved Documents. (18 in total)

Part A; Structure

Part B; Fire Safety

Part C; Site Prep, Contamination & Moisture

Part D; Toxic Substances

Part E; Resistance to sound

Part F; Ventilation

Part G; Water Efficiency

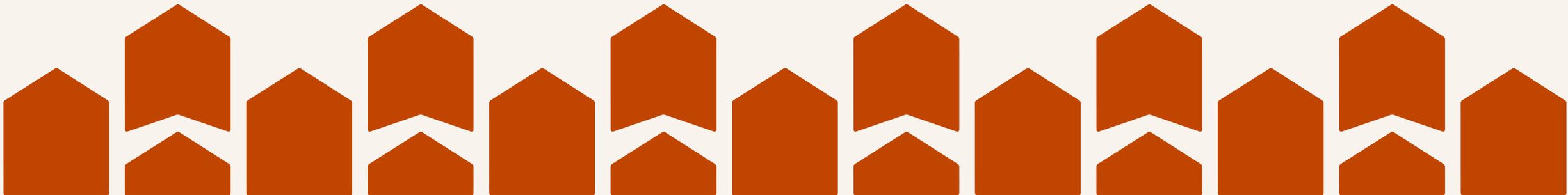
Part H; Drainage & Waste Disposal

Part J; Combustion & Fuel Storage

Part K; Protection from Falling & Impact

Part L; Conservation of Fuel & Power

Part M; Access & use of Buildings



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Building Regulations

Approved Documents.

Part O; Overheating

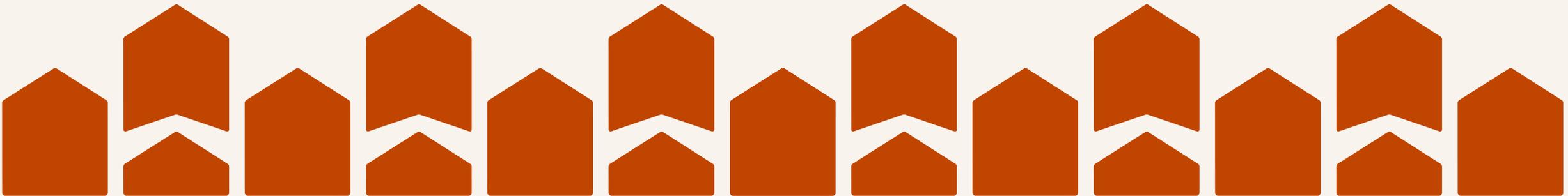
Part P; Electrical Safety

Part Q; Security in Dwellings

Part R; Infrastructure for Electronic Communications

Part S; Infrastructure for Charging Electric Vehicles

Part T; Toilet Accommodation (non residential buildings)



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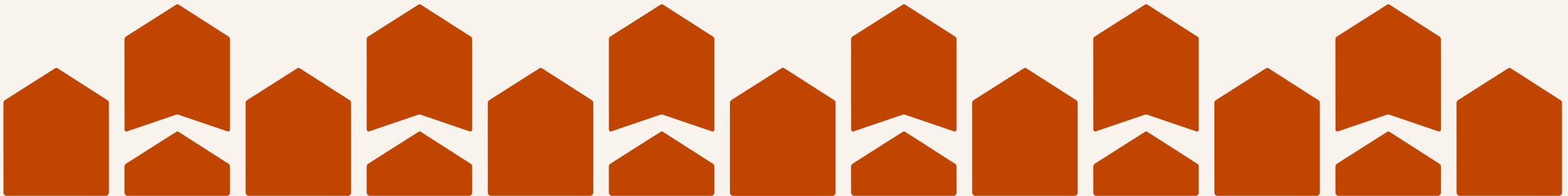
Building Regulations

We will briefly focus on;

Part B; Fire Safety

Part G; Water Efficiency

Part L; Conservation of Fuel & Power



Fire Protected Areas on Houses;

- Windows
- Doors
- Walls
- Roofs

Roof tiles (indicative only) as per specification fixed to 50 x 25mm treated sw battens to BS 5534 on suitable roofing membrane, as noted in the site specification.

Ventilation tray fixed between trusses to maintain a clear air path.

100 x 75mm treated sw wallplate bedded on 10mm mortar joint.

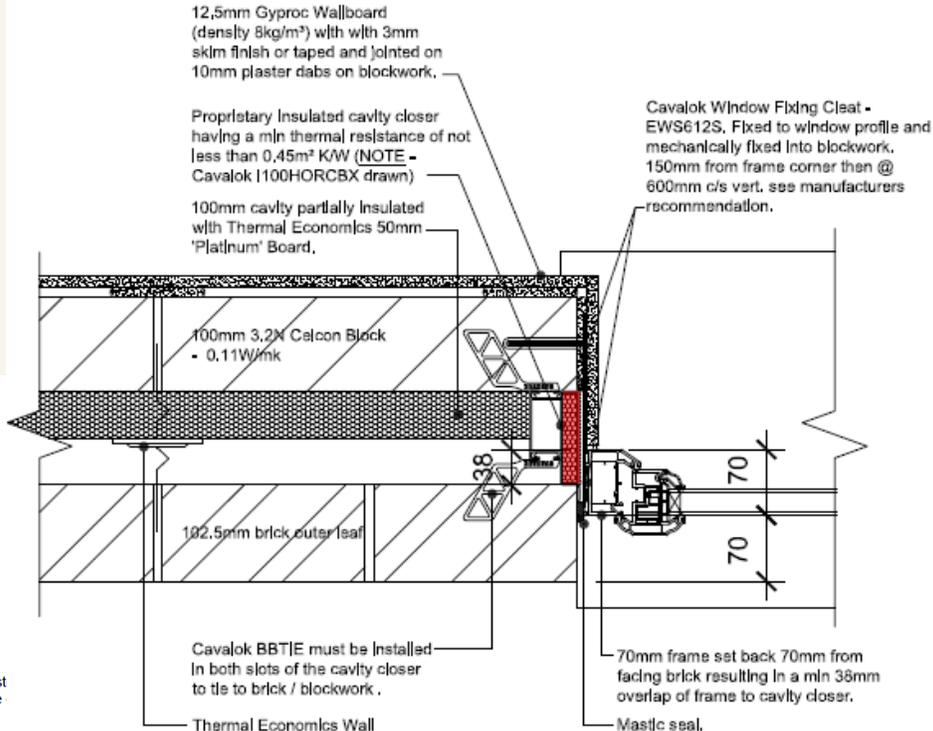
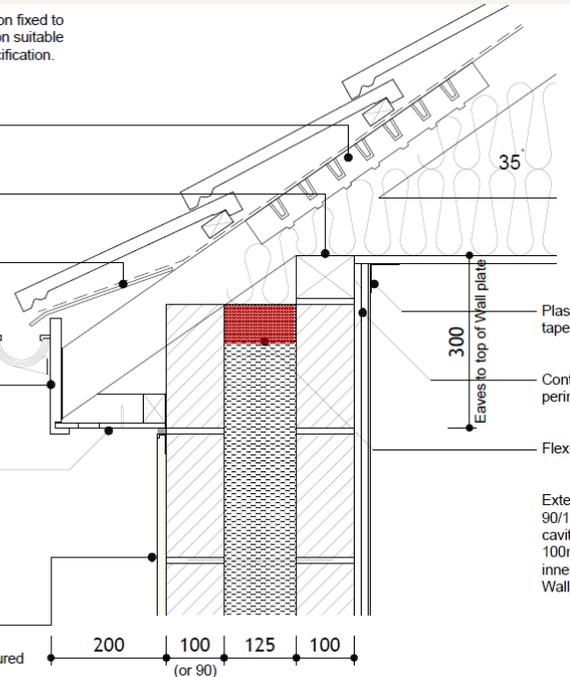
Eaves protector to prevent felt sag and ponding, fixed to top edge of each truss.

PVCu Square edged fascia board, 200mm deep. Fix to rafters with stainless steel Polytop fixings: 2No. 65mm at 600mm centres.

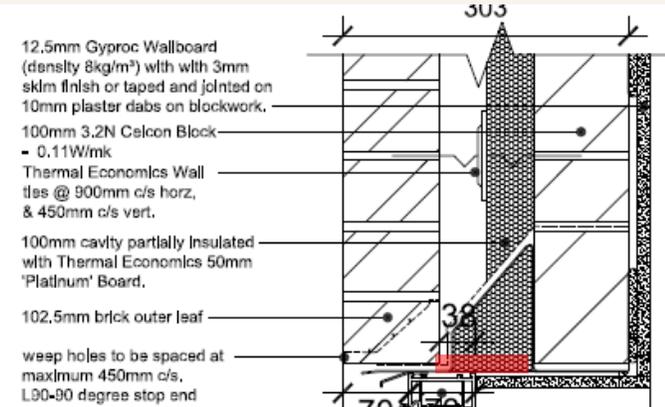
PVCu Ventilated soffit board fixed to bearers with 40mm Trimtop nails or capped screws, providing a 10mm continuous air path.

* 15mm finished thickness through coloured render with a scraped finish, Monocouche Pral M or equal approved, colour as per finishes schedule. Utilise a stop bead to ensure a neat finish below eaves and a sealant bead. Background to be fully meshed.

* Alternatively, utilise roughcast through coloured render, colour as per finishes schedule. Refer to site specification for type.



Window / Door Jamb Detail
Scale 1:5



Lintel to be fully insulated and not have a continuous base plate

70mm frame set back 70mm from facing brick resulting in a min 38mm overlap of frame to cavity closer.

Window / Door Head Detail
Scale 1:5

70mm frame set back 70mm from facing brick resulting in a min 38mm overlap of frame to cavity closer.

Proprietary Insulated cavity closer having a min thermal resistance of not less than 0.45m² K/W (Cavalok I100HORCBX drawn)

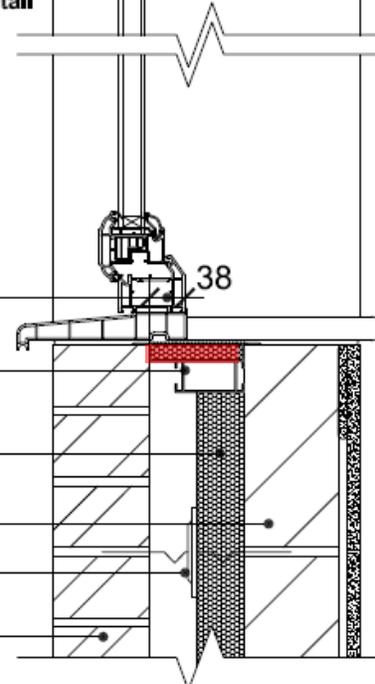
100mm cavity partially Insulated with Thermal Economics 50mm Platinum Board.

100mm 3,2N Calcon Block - 0.11W/mk

Thermal Economics Wall tiles @ 900mm c/s horz, & 450mm c/s vert.

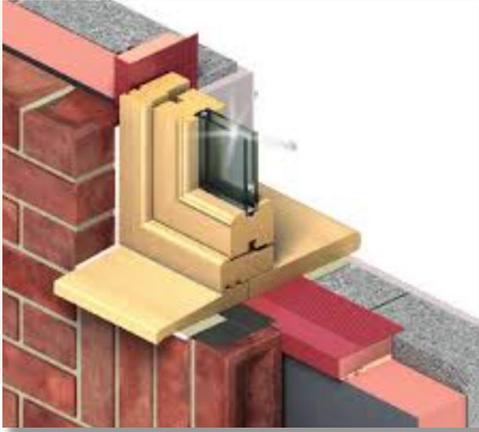
102.5mm brick outer leaf

Window Cill Detail
Scale 1:5

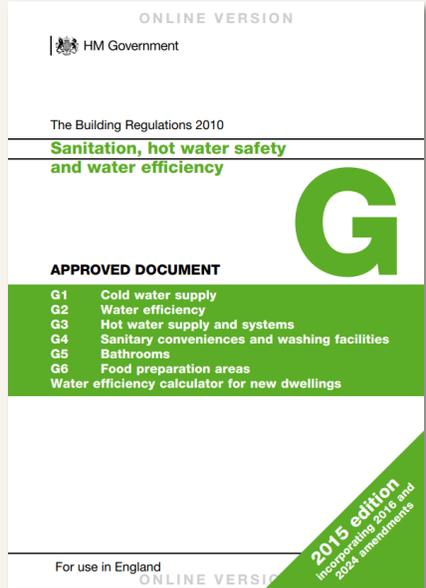


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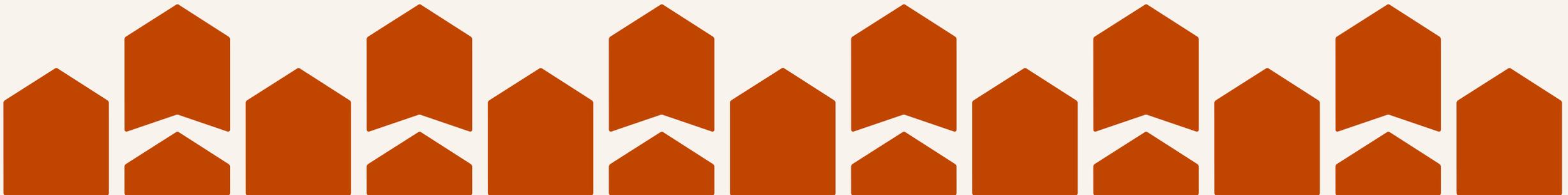
Part B; Fire Safety



Part G; Water Efficiency



- Current Part G Requires 125 lpppd consumption for new homes.
- Average UK household consumption = 145 lpppd
- Environment Agency publishes ‘Water stressed’ areas of UK
- UK will require 5 billion additional litres a day by 2050
- UK population growth, habits/behaviours/lifestyles
- Water is a cheap utility leading to wasteful behaviours
- Strong messaging, raising awareness, improved behaviours.



Part G; Water Efficiency

Current Part G; 125 lpppd

Current Part G; 110 lpppd

Proposed Part G 100 lpppd

Table 2.1 Maximum fittings consumption

Water fitting	Maximum consumption
WC	6/4 litres dual flush or 4.5 litres single flush
Shower	10 l/min
Bath	185 litres
Basin taps	6 l/min
Sink taps	8 l/min
Dishwasher	1.25 l/place setting
Washing machine	8.17 l/kilogram

Table 2.2 Maximum fittings consumption optional requirement level

Water fitting	Maximum consumption
WC	4/2.6 litres dual flush
Shower	8 l/min
Bath	170 litres
Basin taps	5 l/min
Sink taps	6 l/min
Dishwasher	1.25 l/place setting
Washing machine	8.17 l/kilogram

Table 2.2 Maximum water consumption of fittings when optional requirement applies

Water fitting	Maximum consumption
WC	4/2.6 litres dual flush
Shower	6 litres/min
Bath	165 litres
Basin taps	5 litres/min
Sink taps	6 litres/min
Dishwasher	1.25 litres/place setting
Washing machine	8.17 litres/kilogram

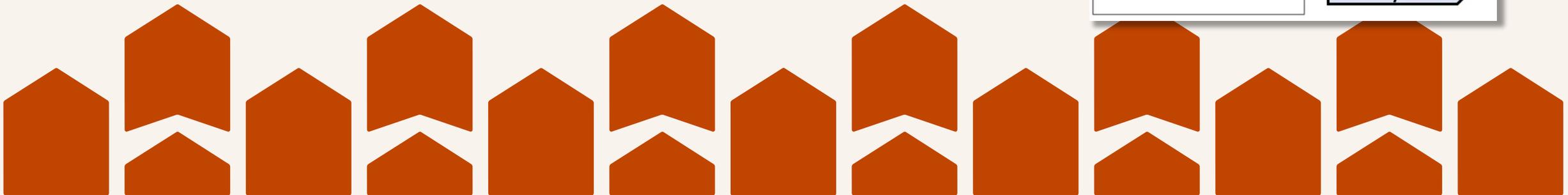
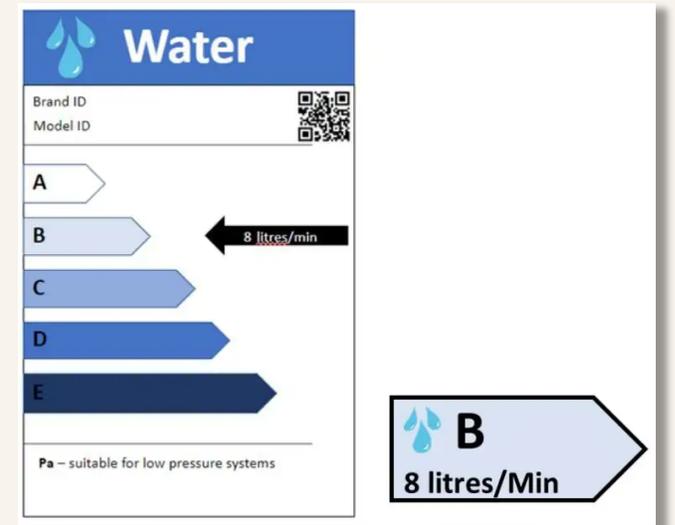


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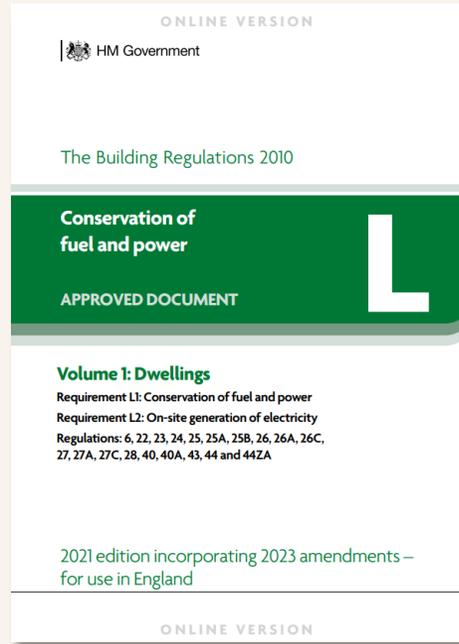
Part G; Water Efficiency

Proposed Part G; Water Efficiency 2026

- 105, 100, 90 (>80 lpppd over next 10 years in Water Stressed parts of the UK)
- Greater Education to consumers
- Smart Water Meters
- Smart Water Butts
- Scalable Tariffs?
- Mandatory Water Efficiency Label (MWEL Defra 2026)
- Greater Innovation; Low water Appliances, toilets, sinks, taps, dishwashers
- Water Reuse; Dual pipes systems, toilet flushing and gardening.



Part L; Conservation of Fuel & Power



Current Part L; 2021

- 31% improvement on energy efficiency over Part L 2013
- Gas Boilers

Part L; 2025 Future Homes Standard....2026?

- Improved fabric performance – (doors, windows, walls, floors & loft)
- Mandatory inclusion of Photovoltaic Panels (PV)
- Improved air tightness and ventilation
- Zero Gas. 100% electric homes
- ‘Zero Carbon Ready’ homes.....



Part L; Conservation of Fuel & Power



- 40% PV floor area on roof space
- 80% improvement on energy efficiency over Part L 2013
- Heat Pumps; Air Source or Ground Source Heat Pumps
- Improved air tightness (to keep out heat loss/draughts)
- High Performance ventilation i.e Mechanical Vent Heat Recovery MVHR
- 1.2 to 1.3W/m²K high performance double glazed Argon filled windows or triple glazing.
- Agile Tariffs/smart metering.
- Domestic Batteries/Thermal Storage



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Housetypes



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Housetypes



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Housetypes



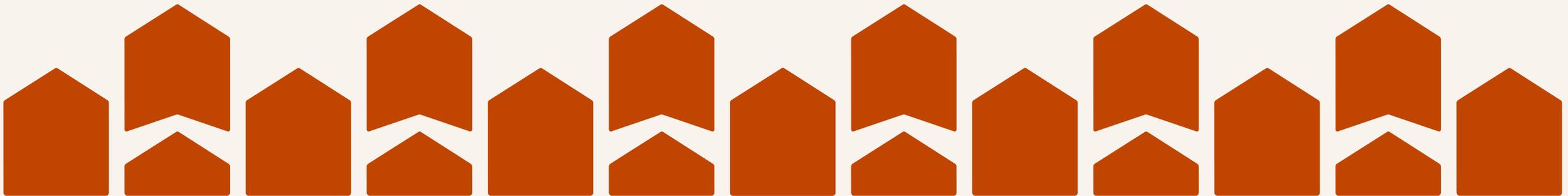
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Housetypes



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Building Regulations Quiz



Building Regulations Quiz

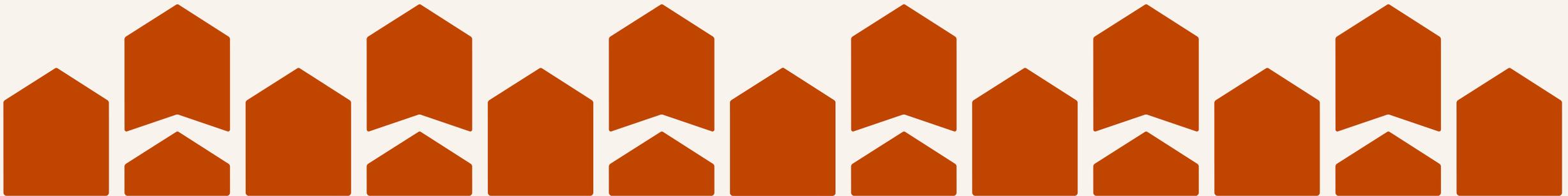
1. The Great Fire of London started in Pudding Lane which established 'Building Regulations' in the UK. Which year was the Great Fire of London started?

1066

1666

1866

1966



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Building Regulations Quiz

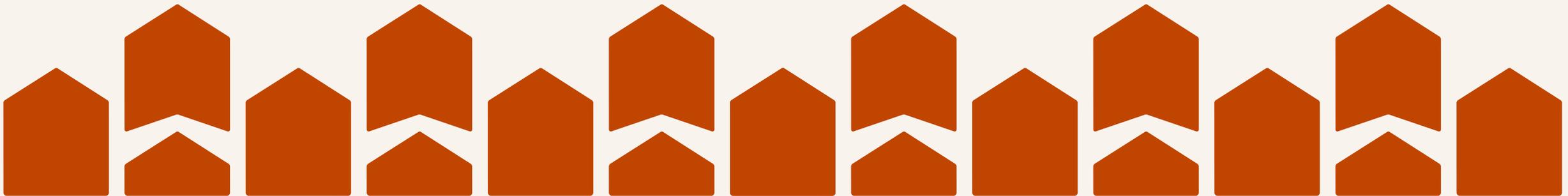
2. Which Part covers energy, conservation of fuel and power and the Future Homes Standard?

Part C

Part S

Part L

Part G



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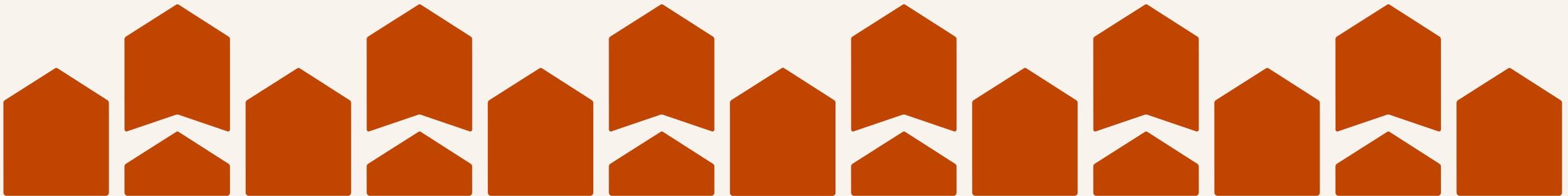
3. Fire Protection covers which of the following areas?

Windows

Doors

Roof

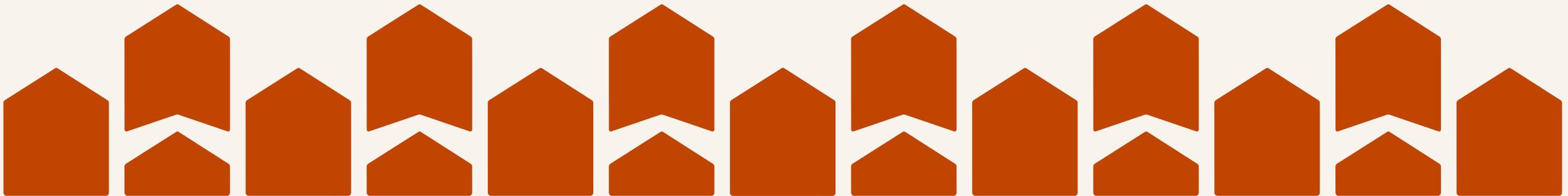
All of these areas



Building Regulations Quiz

4. The Future Homes Standard will achieve how much of an improvement in energy efficiency in new homes?

- 31%
- 50%
- 80%
- 100%



Building Regulations Quiz

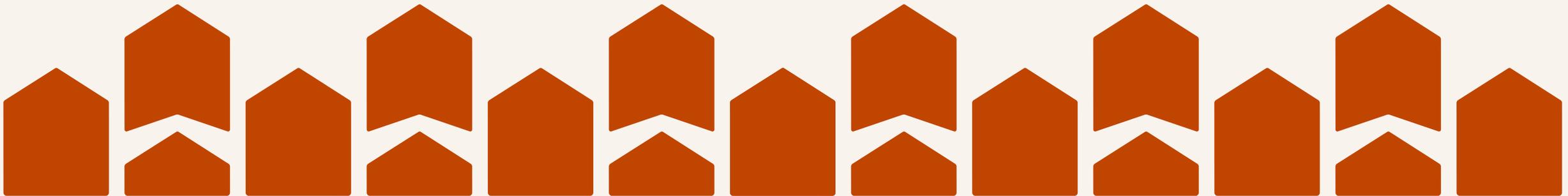
5. Which year was the **Building Safety Act** introduced following the Grenfell Fire which oversaw a significant change to UK Building Regulations?

2017

2022

2020

2025



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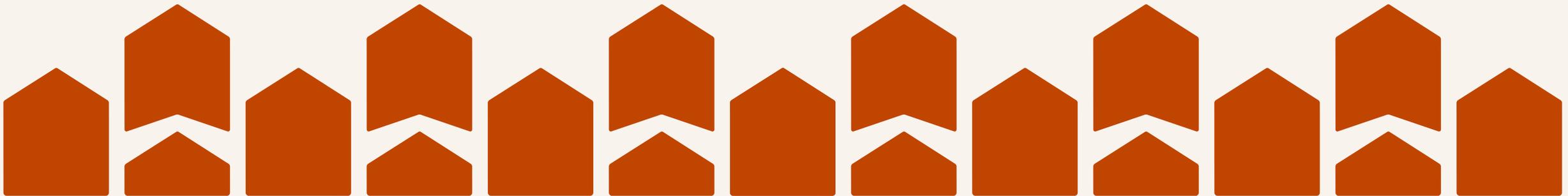
6. The Future Homes Standard will see significant changes to the fabric and energy performance of new homes. Which of the features below will be seen in new homes under the FHS?

Heat Pumps

Photovoltaic Panels

Improved insulation

All of the above



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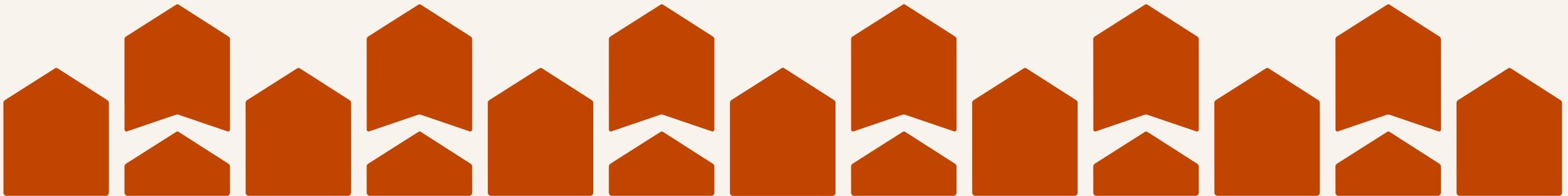
7. Photographic evidence of insulation in cavity walls and other areas is required under which approved document?

Part A; Structure

Part F; Ventilation

Part H; Drainage

Part L; Conservation of fuel & power



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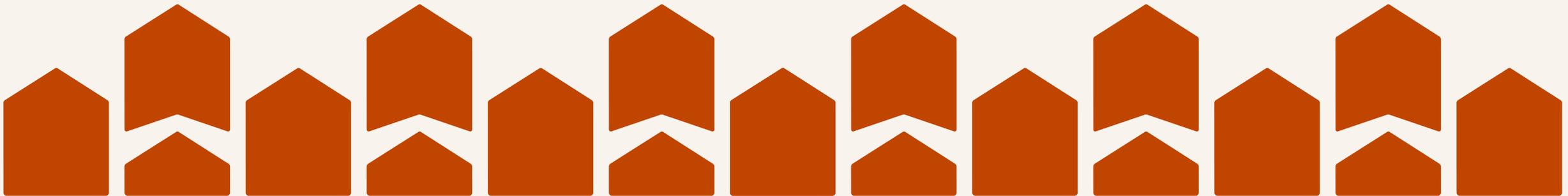
8. How much additional water will the UK require each day by 2050?

5 billion litres

50 billion litres

10 million litres

1 million litres



Building Regulations Quiz

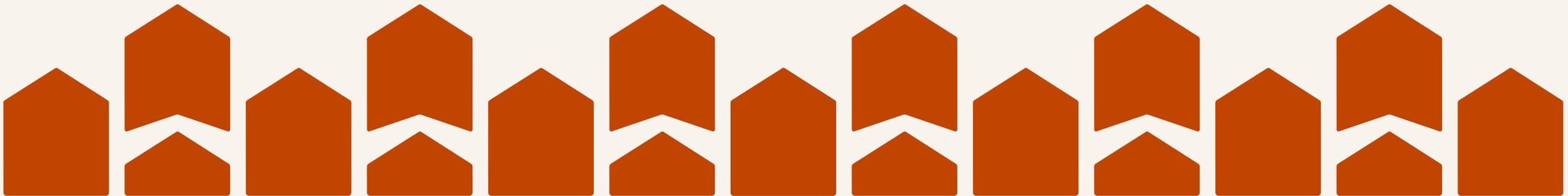
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Part B

Part C

Part G

Part D



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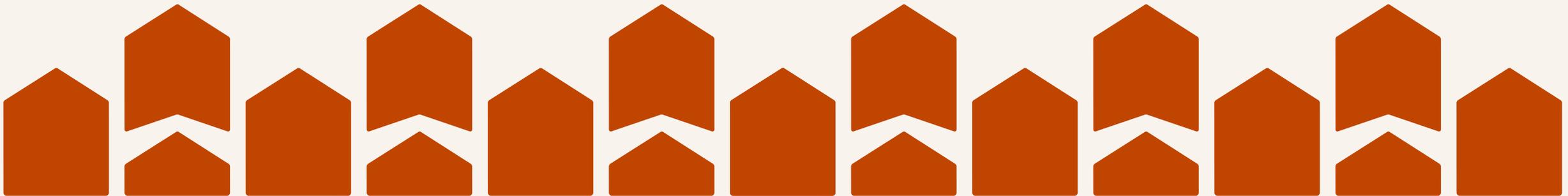
10. Domestic electric vehicle charging uses what power supply?

Slow 3kW

Fast 7.2kW

Rapid 50kW

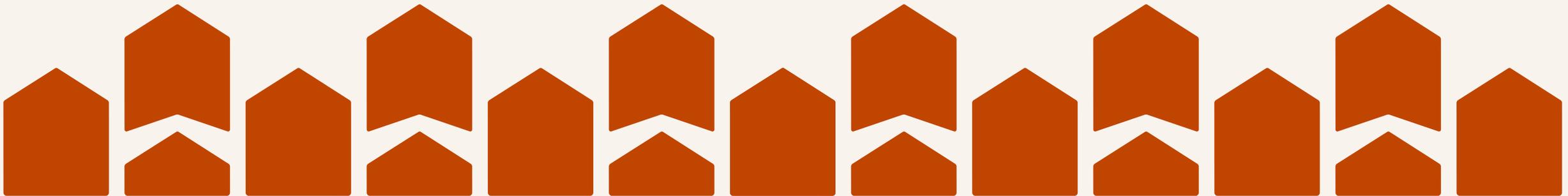
Ultra fast 150kW



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End of Quiz

Answers...



Building Regulations Quiz

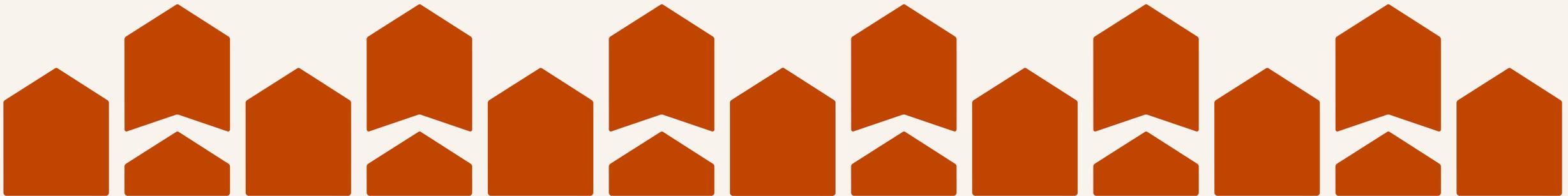
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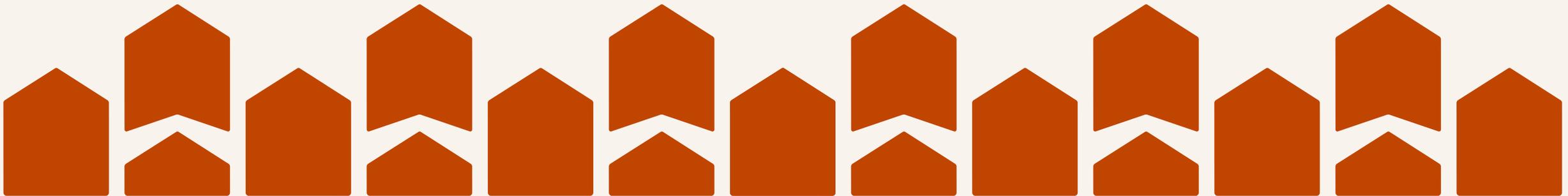
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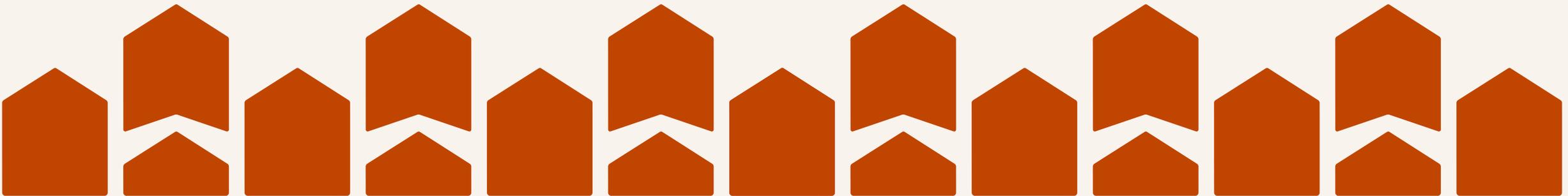
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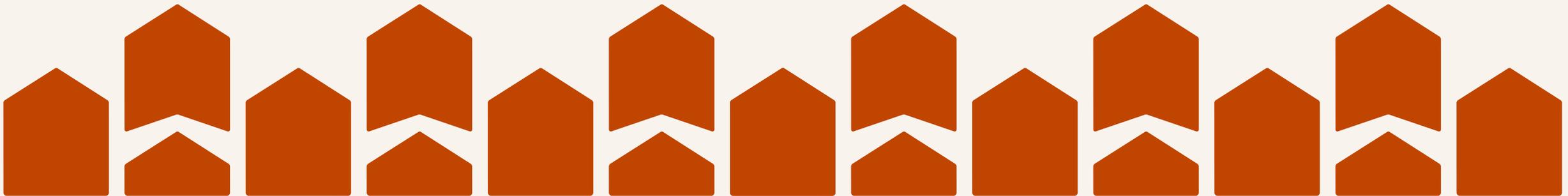
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- 31%
- 50%
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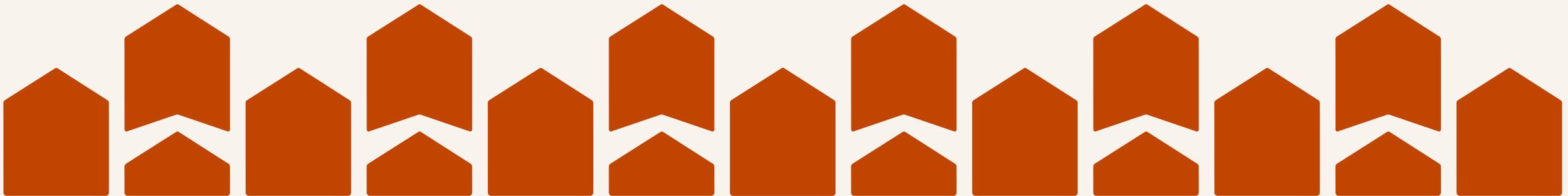
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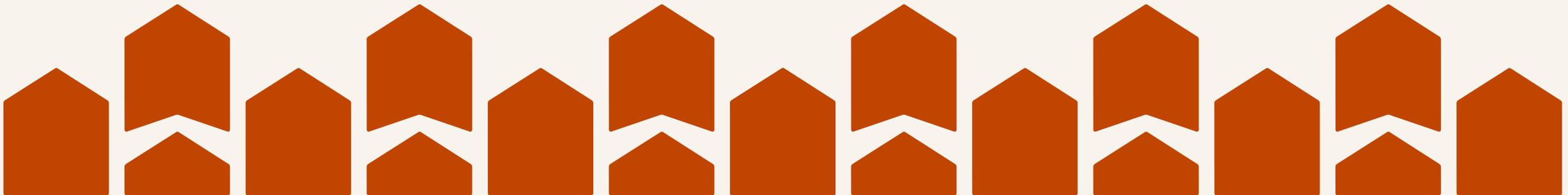
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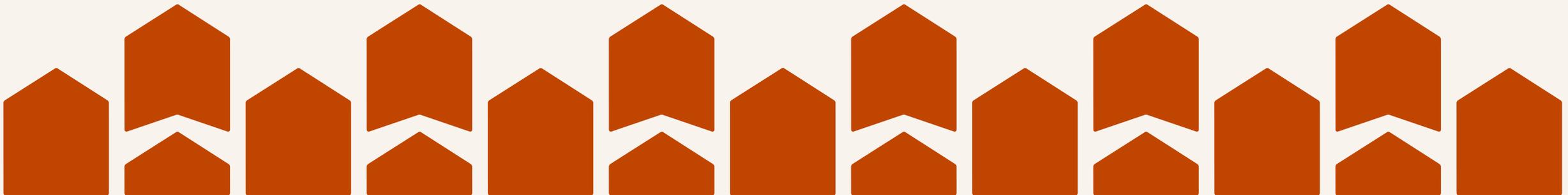
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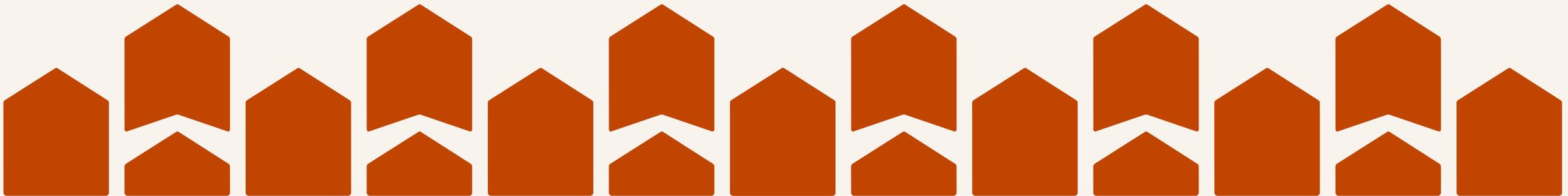
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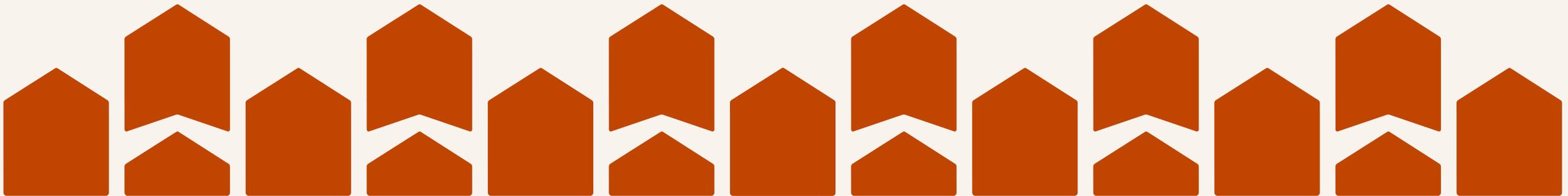
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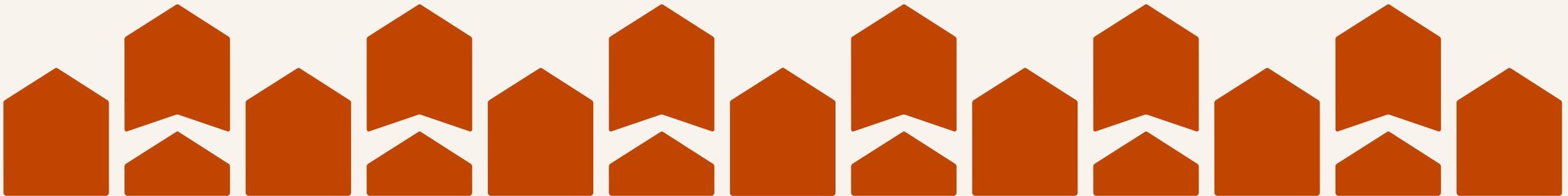
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