# **Transforming housing**











Designed, engineered and produced by RSHP and AECOM, our off-site assembled volumetric housing system provides high-quality affordable living and creates sustainable, resilient urban communities.

Together we form a vertically integrated team that provides a well-designed, manufactured, assembled and installed product: fully finished and fitted internally and externally.



An adaptable, flexible design, our off-site housing solution can be tailored to location, context and community aspirations.

Developed through our desire to deliver higher quality, better-performing homes across the social scale, our solution is digitally optimised, integrated by a mature supply chain and delivered through a simplified assembly methodology.





- 1. YMCA, Romford, Essex
- 2. Cardiff Living, Wales
- 3. Mayfield, Lewisham, London









4. Home Park, Lewisham, London5. Town house proposal







# FULLY DEMOUNTABLE Temporary and permanent housing solution

# FASTER PROGRAMME

# LIGHTWEIGHT STRUCTURE

# **CERTAINTY OF DELIVERY** Robust supply chain Tested process Product backed by AECOM

### LOCAL DISRUPTION AND POLLUTION

#### **OCCUPIER WELLBEING**

The performance of the home, and how it is used, is fundamental to its design. Energy demands, considered materials, air quality and noise impact are interdependent and, depending on location, can be adapted to create the optimum environment.

#### SAFE AND SUSTAINABLE

With modules delivered 95 per cent off-site, in a controlled work environment with standardised manufacturing processes, there are obvious major safety benefits. Waste, noise, pollution and local disruption are also significantly reduced.

#### **FIRE SAFETY**

Safety standards are prioritised, with equivalent or higher fire safety performance compared with Approved Document B Building Regulation fire safety requirements. And units are installed with a LD1 automatic fire detection and alarm and automatic fire suppression system.

# EXCEEDING BUILDING PERFORMANCE STANDARDS

#### 1. ACOUSTICS

Higher sound insulation between units: +5dB higher than the ADE building regulation acoustic separation requirements between units.

#### 2. AIRTIGHT

Precision manufacturing and construction minimises heat loss, reduces energy demand and maximises benefits of heat recovery and air quality.

#### 3. FIRE SAFETY

One-hour fire resistance: achieved in floors and walls between modular units from each side independently.

External walls and balconies: non-combustible materials including balustrades.

Internal lining: resistant to flame spread.

3mm thick steel profile fire stopping in window and door shrouds.

#### 4. HEATING

Electric heating: underfloor or far-infrared panel heaters.

#### 5. INTERNAL

Internal space finishes adopt low-VOC emission materials. Efficient LED lighting is adopted throughout.

#### 6. OPTMISED GLAZING

High-performing solar glazing is optimised to maximise daylight and energy efficiency while minimising solar gain.

Triple glazing reduces noise ingress, heat loss and risk of condensation, and improves thermal comfort.

A mix of full height and standard tilt and turn windows allows for greater control over ventilation, improved thermal comfort and mitigates overheating.

#### 7. RECESSED BALCONY

Protected outside spaces, reducing solar gain in summer.

#### 8. THERMAL BRIDGES

Thermal bridging within the building fabric reduces heat loss and prevents condensation and mould growth.

#### 9. THERMALLY EFFICIENT

The façade contains nonflammable, super-insulating stonewall (Rockwool), minimising running costs and maximising thermal comfort.

#### **10. VENTILATION**

MVHR delivers energy efficiency, filtered air and low noise, and greater user comfort.

#### **11. WATER CONSUMPTION**

Controlled flow rates reduces potable water consumption.









## **About AECOM**

AECOM is built to deliver a better world. We design, build, finance and operate critical infrastructure assets for governments, businesses and organizations. As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges. From high performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated and vital. *A Fortune 500* firm, AECOM had revenue of approximately \$20.2 billion during fiscal year 2018. See how we deliver what others can only imagine at aecom.com and @AECOM.

#### **About RSHP**

Rogers Stirk Harbour + Partners (RSHP) is an international architectural practice based in London. Over the past four decades, RSHP has attracted critical acclaim and awards with built projects across Europe, the Americas, Asia and Australia. The practice is experienced in designing a wide range of building types including: office, residential, transport, education, culture, leisure, retail, civic and healthcare. The quality of its designs has been recognised with some of architecture's highest awards, including two RIBA Stirling Prizes, one in 2006 for Terminal 4, Madrid Barajas Airport and the other in 2009 for Maggie's West London Centre. The practice has produced innovative, beautiful and sustainable architecture which creatively solves problems for clients.



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