Offsite and Modular Construction

Atelier

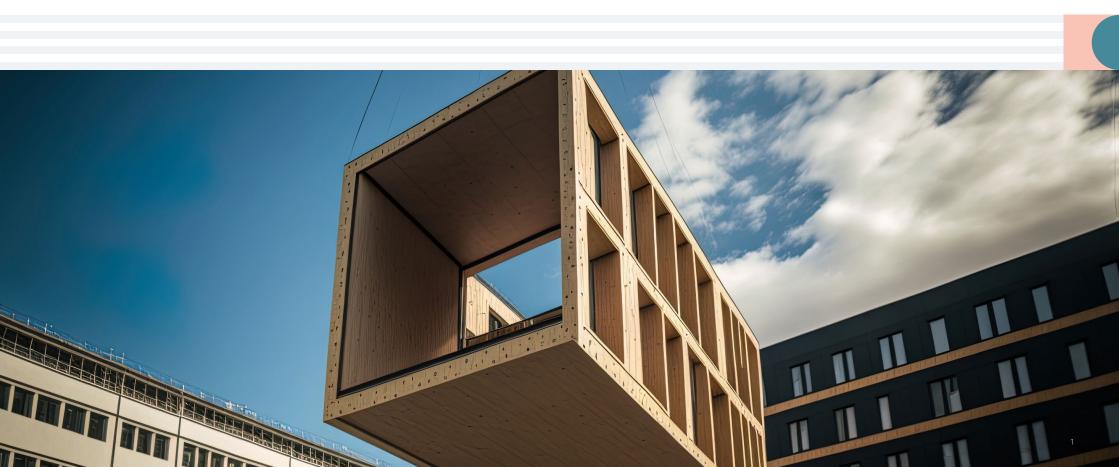
Residential Development Lending Guide

We're a team of property finance specialists dedicated to supporting SME residential property developers.



We are trusted by, and work in collaboration with, the UK's leading SME developers, development finance intermediaries and professional partners.

We've financed over £750m of property development across the UK, delivering homes on brownfield sites and in areas where new homes are needed most. Our focus on regeneration has led us to develop the pioneering sustainable finance solution, the Carbonlite Challenge, in association with the Royal Institute of British Architects (RIBA). Carbonlite links a scheme's carbon emissions to the cost of its finance, and makes it easier and cheaper for developers to build energy-efficient, low-carbon homes.



The shift to offsite construction

It's clear that there is a shift in residential property development towards offsite and modular construction.

These offsite construction innovations are improving build quality, consistency and the speed of delivery. But they are also posing new challenges to the construction and finance sectors.

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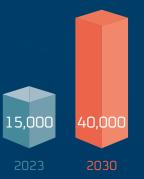
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This guide is designed to help property developers, intermediaries and contractors understand and navigate the risks and rewards that modular brings. It also sets out how Atelier approaches the credit considerations of underwriting finance applications for modular and offsite schemes.

In the UK, around 7.5% of new homes (15,000 homes a year) are built using offsite or modular construction. Research by Savills suggests this proportion could increase to 20% by 2030. The move to offsite construction has been given additional impetus by the UK Government, which has mandated that a quarter of the homes delivered as part of its strategic Affordable Homes Programme must be built using modern methods of construction (MMC).

For SME developers, offsite manufacturing offers significant opportunities, but also challenges – from the development of a robust supply chain to finding costeffective, supportive finance.

New homes built using modular construction*:



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Opportunities and challenges in offsite construction



process of producing elements of a building in a factory, away from the construction site.

Opportunities in offsite versus traditional construction



Faster construction

Site ground can be prepared while building elements are built in factories



Better build quality

Building elements are manufactured in a controlled environment



Lower costs

Reduced programme time on-site, less waste, and fewer snags and corrections expected on end product



Improved sustainability credentials Reduced waste and less travelling to site



Safer, more reliable working conditions Construction workers spend more time indoors with heavy lifting done by specially installed machinery While advancing technology is constantly expanding the range of options and methods available to architects and developers, Atelier believes offsite construction, in its various forms, will play an increasingly key role in the UK's built environment.

At a time when UK housebuilding must accelerate significantly to close the gap between supply and demand, offsite construction presents opportunities to deliver viable, profitable, high quality schemes. Where rising labour and material costs have squeezed developer margins and where the drive for sustainability is stronger than ever, more developers are considering offsite construction solutions.

Yet for all the compelling opportunities, developers and contractors still face a number of practical challenges. We've highlighted what we consider to be the main opportunities and challenges below.

Challenges in offsite versus traditional construction



Gaining a robust supply chain Finding reliable and proven modular manufacturers



Securing cost-effective, supportive finance

Finding lenders that are comfortable and adept at funding non-traditional construction schemes



Mortgageability of the homes built

Assurance that the end product can be purchased using a mortgage from a high street lender



Buyer/end user preference and confidence

Identifying occupiers with no aversion to purchasing and living in offsite constructed homes



Compliance with building regulations

Ensuring offsite components as well as the full construction comply with building regulations

Offsite construction categories



There are four principal categories of offsite construction systems with each category providing different solutions and products. These range from single components to fully-built homes, all with factory-built components. For the purposes of our guidance, all of these systems are considered by Atelier to fall under the umbrella of 'offsite construction'.

Modular

- Whole modules / sections of buildings are manufactured and then stacked and connected onsite
- Pre-fitted with plumbing, electrics, windows and doors
- Opportunities for significant reduction in construction time frames

Volumetric

- Pre-engineered and pre-assembled units transported to site and fitted into a main or existing structure
- Includes bathroom or kitchen 'pods' with plumbing, electrics and fittings included
- Ready for use after installation

Panelised

- Wall, floor and ceiling elements manufactured in a factory
- Can be pre-fitted with mechanical services and fittings
- Quickly assembled onsite to form the new building

Component

- Small parts of the building made in a factory, for onsite use, to facilitate construction
- Includes roof trusses, pre-assembled door frames and doors (door sets)









How the industry defines offsite construction

Agreeing a clear definition of what constitutes 'offsite construction' is important in the financing of a scheme.

For us as a lender, it enables us to apply more structure to our loan underwriting, which in turn allows us to give decisions and certainty to our clients more quickly.

Based on the UK Government's MMC Definition Framework, developed by the Ministry of Housing, Communities & Local Government (MHCLG) Joint Industry Working Group on MMC, Atelier has outlined how we treat schemes across the spectrum of offsite construction. From schemes using full-scale modular methods through to smaller, processled traditional construction techniques, Atelier's approach and requirements are clear from the outset. This means our clients are able to act with clarity and certainty, and can prepare efficiently to fulfil the requirements for gaining finance for their offsite construction schemes.

Offsite construction types and Atelier's approach

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Framework based on the MMC Definition Framework (MHCLG, UK Government)

Offsite construction systems spectrum	Modular		Volumetric		Panelised		Component
Construction type		Offsite and n	Traditional construction site-based improvement				
MMC Framework	Category 1	Category 2	Category 3	Category 4	Category 5	Category 6	Category 7
Category definitions spectrum (UK Government)	3D primary structural systems	2D primary structural systems	Non-systemised primary structure	Structural and non-structural additive manufacturing	Non-structural assemblies and sub-assemblies	Onsite product-led improvement	Onsite process-led improvement
Description and examples	 Pre-manufacturing (in factory) Modular construction 3D units made offsite then transported to and installed onsite 	 Pre-manufacturing (in factory) Floors/walls/roofs made offsite and assembled onsite to create 3D structure Includes open (skeletal) and closed (with lining/ insulation) panels 	 Pre-manufacturing components with assembly primarily onsite Framed timber, rolled steel, pre-cast concrete Load-bearing beams, walls, core structures, slabs 	 Additive manufacturing Printing of building parts through digital design and manufacturing techniques 	 Pre-manufacturing (in factory) Sub-assembly for end installation Non-load bearing mini volumetric units Non-structural 'pods' for kitchens, bathrooms, risers, plant rooms 	 Traditional building products Pre-cut configurations/ easy joining features to reduce site labour 	 Site process-led Weatherproof, controlled enclosures Modular scaffold, concrete framework Site worker productivity tools, robotics Autonomous equipment, e.g. drones
Does Atelier's key eligibility checklist for financing offsite schemes apply?*Output Checklist applies		st applies	Checklist likely to apply			Checklist not likely to apply	
	See page 6 for Atelier's key eligibility checklist for financing offsite schemes						

Atelier will consider the scale and materiality of the modular components on a case-by-c basis, to determine whether the offsite construction assessment requirements are neces

Key eligibility checklist for offsite construction schemes

Over and above the standard requirements and objectives for any development scheme, there are three specific aspects to consider for new homes where offsite construction techniques are used.

Atelier must evidence that these aspects are satisfied prior to agreeing finance.

Key eligibility checklist for financing offsite and modular construction schemes (likely to apply for categories 1-5 of the MMC Definition Framework)

	Essential aspects of offsite construction financing				
Responsible party	Accreditation and warranty	2 Manufacturer and developer credentials	3 Marketability of development		
Offsite manufacturer	 BOPAS accreditation or NHBC Accepts certification 	 Assembled in the UK (if advance payments are required) Evidence of financial resilience Track record of delivery 	 Evidence of modular systems being used in developments that are successfully mortgaged 		
Developer	 Warranty from a reputable provider Eligibility for homeowner buildings insurance on standard terms 	 Offsite manufacturing failure contingency plan 	 Valuer not to comment negatively on marketability due to construction type 		

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Development finance with Atelier

Atelier's offsite and modular finance solutions enable developers to borrow up to £40m. Our in-house team of lawyers, surveyors and credit experts cuts through complexity to craft custom lending solutions that are precisely tailored to each borrower and project. Once in place, our facilities cover the developer's projected funding, which enables them to make seamless drawdowns and allows us to keep the project liquid, funded and on track. Our professional team is always on hand to provide advice and assistance as the project progresses.

We are pleased to be able to accommodate offsite construction schemes. For more information on Atelier's lending criteria and pricing, go to *www.atelierfinance.co.uk*



Details and descriptions of these requirements are provided in Offsite Construction Requirement k Descriptions & Information within this guide.

Offsite construction requirement descriptions and information

Comfort for offsite financing	Requirement item	Descriptions and information
1. Accreditation and warranty	BOPAS accreditation	 Accreditation of the Buildoffsite Property Assurance Scheme (BOPAS) Evaluation of modular systems providing assurance for designers, manufacturers, developers and lenders BOPAS accredited developers and constructors directory: https://www.bopas.org/who-how-we-accredit/bopas- accreditation-database
	NHBC Accepts certification	 Certification from the National Housebuilding Council (NHBC) NHBC Accepts accepted systems directory: https://www.nhbc.co.uk/builders/products-and-services/ techzone/accepts/accepted-systems NHBC registered builders directory: https://www.nhbc.co.uk/homeowners/check-the-register)
	Build warranty	Must be from an established and reputable provider
	Eligibility for homeowner buildings insurance on standard terms	 Can include evidence of buildings insurance from previous schemes that used the same modular systems and manufacturers Statement or letter from an established buildings insurer commenting on the insurability of the development
2. Manufacturer and developer credentials	Assembled in the UK (if advance payments are required)	 All components of the structure must be assembled at a factory located in the UK (if advance payments are required)
	Evidence of financial resilience	 Either one of: (a) Parent company guarantee (where the modular firm is part of a bigger and financially stable company) A contractual promise to ensure the guaranteed party performs its obligations under a contract Creates a secondary obligation to fulfil the original obligation Where we cannot get a parent company guarantee, we will accept a positive balance sheet instead (b) Positive balance sheet With many modular manufacturers going into administration, it is essential that the firm(s) can evidence a history of turning a profit (or provide a parent company guarantee - see above) Sufficient evidence upon assessment of the modular firm's balance sheet that the business is sound A review of company accounts must be undertaken by Atelier's Finance team
	Track record of delivery	Evidence to show a successful back book of offsite construction schemes using proposed modular systems
	Modular manufacturing failure contingency plan	 Agreement of a 'Plan B' method of construction with borrowers, should the primary modular methods fail or halt (with associated cost assumptions)
3. Marketability of development	Mortgageability and marketability	 Accreditation, warranty and home insurance eligibility Valuer must not comment negatively on the marketability of the development due to construction type

Resources

A Brief Guide To Offsite Construction Modularize

View PDF

Affordable Homes Programme 2021-2026: Evaluation Scoping Report (2022) UK Government

View PDF

Futurology: The New Home In 2050 (2018) NHBC

View PDF

Modern Methods Of Construction: A Forward-Thinking Solution To The Housing Crisis? (2018) RICS

Modern Methods Of Construction: Building On Experience (2021) NHBC

View PDF

Modern Methods of Construction: Introducing The MMC Definition Framework (2019) Ministry of Housing, Communities & Local

Government (MHCLG) / UK Government

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Modern Methods Of Construction: Who's Doing What? (2018) NHBC

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Ready for your next project?

We'd love to help, please get in touch

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Better property finance, by design

