

# Shanette Steel Frame Houses & Extensions

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# WHY SHANETTE ?

Shanette Steel Frames -Your trusted steel building manufacturer since 1983.

As Ireland's original steel frame manufacturer, we bring proven expertise and a consistent commitment to quality across every project. From bespoke residential homes and extensions to larger-scale developments, the same standards apply at every stage supported by independently certified systems recognised for use in Ireland.



## Innovative Technology and High-Quality Manufacturing

Using advanced 3D CAD software and modern frame production methods, we manufacture premium off-site solutions for the residential and construction sectors. Our metal forming machinery enables the production of certified, high-quality steel-framed structures and components that meet recognised industry standards, including systems independently validated for compliance with Irish Building Regulations.



**NSAI**  
Agrément

Shanette Steel Frame Building System  
CERT No. 22/0432



## NSAI Agrément Certified: Independent Validation for Irish Projects

Shanette holds NSAI Agrément Certification for its Light Gauge Steel (LGS) framing system (Certificate No. 22/0432), providing independent verification of system performance and compliance.

This certification reflects Shanette's long-standing leadership in off-site manufactured 2D sectional steel-framed buildings and represents an important assurance for our customers.

### What is NSAI Agrément?

NSAI Agrément is an official Irish certification confirming that the LGS system is safe, fit for purpose, and fully compliant with Irish Building Regulations. It provides independent, third-party validation, specifically assessed for Irish conditions and climate.



### What This Means For Your Project:

#### Speed & certainty:

MMC precision supports faster, more predictable construction programmes

#### Quality & consistency:

Off-site fabrication delivered with controlled accuracy on site

#### Sustainability:

Reduced waste, lower embodied carbon, and high thermal performance

#### Confidence:

Certified compliance recognised by architects, engineers, and builders



NSAI Agrément certification reinforces Shanette's commitment to raising construction standards and supporting the wider adoption of trusted Modern Methods of Construction.

# PRODUCTS & SERVICES



Welcome to the future of construction with steel frame solutions. Experience the strength and reliability that sets us apart. Contact us today, and let's make your next project a success.

## WHAT WE MANUFACTURE

- EXTERNAL WALLS
- FLOOR CASSETTES
- ROOF TRUSSES
- ANGLE TRIMS
- ACCESSORIES
- CUSTOM FABRICATION

### Light Gauge Steel Frame (LGSF) Systems

Our LGSF systems are fully designed and certified structural panel solutions, ideal for the rapid construction of buildings. By saving time and labour, they offer significant value to residential, commercial, and industrial projects.

#### Key Features:

- Engineered C profile LGS studs designed for optimal axial capacity.
- CE EN 1090 certification for the execution of steel structures.
- Flexibility to meet project needs with options including single-section components (stick form), pre-assembled steel frames, or complete pre-assembled panels.

#### 1 | Self Assemble Frames

Ideal for Modular Building Contractors, POD Manufacturers, and Self-Builders who need a reliable supply of pre-engineered steel products to feed their assembly line or building project. Also known as stick form or sticks. All of our frame pieces and parts are individually ink-jet marked with ID numbers and accompanied by detailed assembly drawings. Self-assembly is quite straightforward.

#### 2 | Pre - Assembled Frames for Collection or Delivery

With this option, Shanette assembles all parts into complete frames at our manufacturing facility, which are then loaded on stillages ready for collection or delivery. Once on-site, the frames are simply bolted together into complete structures. We supply pre-assembled frames that form complete structures to clients who then fit-out according to their own project specifications.

#### 3 | Pre-Assembled Frames with On-Site Construction

With this option, Shanette assembles all parts into complete frames, which are then brought to the site and fully constructed by our installers. This method saves a huge amount of time for building contractors or one-off house builders.

# OUR PROCESS

## Contact & Initial Consultation

Discuss your plans with us, and we'll gladly provide guidance on the options available.



### 1| Planning

Whether you're a building contractor or a self-builder, our experienced team is here to guide you towards the ideal steel frame solution.

- **Wall Type Finishes:** We offer multiple exterior wall finishes—including brick, masonry, or external render—that your chosen builder will install on-site once Shanette has completed the steel frame structure.
- **Insulation Build-Ups:** You and your engineer can choose between several different insulation build-ups to suit your project's needs. We offer two main choices, Hybrid Frame and Warm Frame.
- **Energy Efficiency:** We can advise on U-values for each wall type, helping your building achieve the best possible energy rating.

*For more in-depth information on specific wall and insulation build-ups, please see our wall build up page.*

### 3| Production

Manufacturing takes place at our facility in Kilbeggan, Co. Westmeath.

**Cold-Formed Steel:** Using modern manufacturing techniques, we produce high-quality, CE-marked steel frame building solutions.

**Rigorous Quality Control:** Our production processes ensure consistent excellence.

### 2| Design

Our skilled engineering team will collaborate with you, your architect, and your engineer to design the perfect steel frame system for your specific requirements.

- **Expert Collaboration:** We address technical queries promptly.
- **Detailed Drawings:** We produce 2D and 3D drawings to keep you informed at every stage of the process.



### 4| Delivery & Installation

Our pre-assembled frames are manufactured off-site at our quality-controlled facility in Kilbeggan, then loaded onto custom trailers for transport to your site.

- **On-Site Assembly:** Panels are bolted together in sections with the aid of truck-mounted cranes.
- **Supply-Only Option:** For supply-only customers, frames can be collected using returnable stillages or delivered directly to the site by our fleet of trucks.

# WALL BUILD UP OPTIONS

When designing a steel frame home, selecting the appropriate wall build-up is crucial for optimising thermal performance, structural integrity, and compliance with building regulations. We offer a variety of exterior wall options, including brick, masonry, and external render, all of which will be installed on-site by your chosen builder after Shanette has completed the steel frame structure for your project. You and your engineer can choose from several insulation build-ups to suit your specific requirements. We provide two main options: **Hybrid Frame** and **Warm Frame**.

## Key Differences

The primary distinction between Hybrid Frame and Warm Frame systems lies in the location of the insulation:

- 1. Hybrid Frame:** Insulation is installed both within the 100 mm steel frame (to be fitted on-site by others) and on the external face of the frame, which is factory-fitted. Common external insulation materials include foil-backed PIR boards, Rockwool mineral wool, or metal-faced insulated sandwich panels—each offering unique advantages depending on project needs.
- 2. Warm Frame:** All insulation is installed on the exterior face of the Shanette steel frame, creating a continuous, uninterrupted thermal layer.

## Energy Efficiency:

We can provide guidance on U-values for both Warm Frame and Hybrid Frame wall types to help your building achieve the best possible energy rating.

### System 1. External Wall with PIR Insulation and Masonry Outer Leaf – Hybrid Frame

The Hybrid Frame system combines external PIR insulation with additional insulation placed within the steel frame. This approach balances thermal performance with cost-effectiveness, making it a practical choice for a wide range of designs.



Figure 1. External Wall with PIR Insulation & Masonry Outer Leaf – Hybrid Frame

### System 2. External Wall with PIR Insulation and Masonry Outer Leaf – Warm Frame

This build-up includes a brick masonry exterior, providing a traditional yet durable finish. The external PIR insulation ensures a seamless thermal barrier.



Figure 2. External Wall with PIR Insulation & Masonry Outer Leaf – Warm Frame

### System 3. External Wall with PIR Insulation and Rendered Masonry Outer Leaf – Warm Frame

This system places all insulation outside the steel frame, creating a continuous thermal envelope. By minimising thermal bridging, it ensures superior energy efficiency and a consistent interior climate.

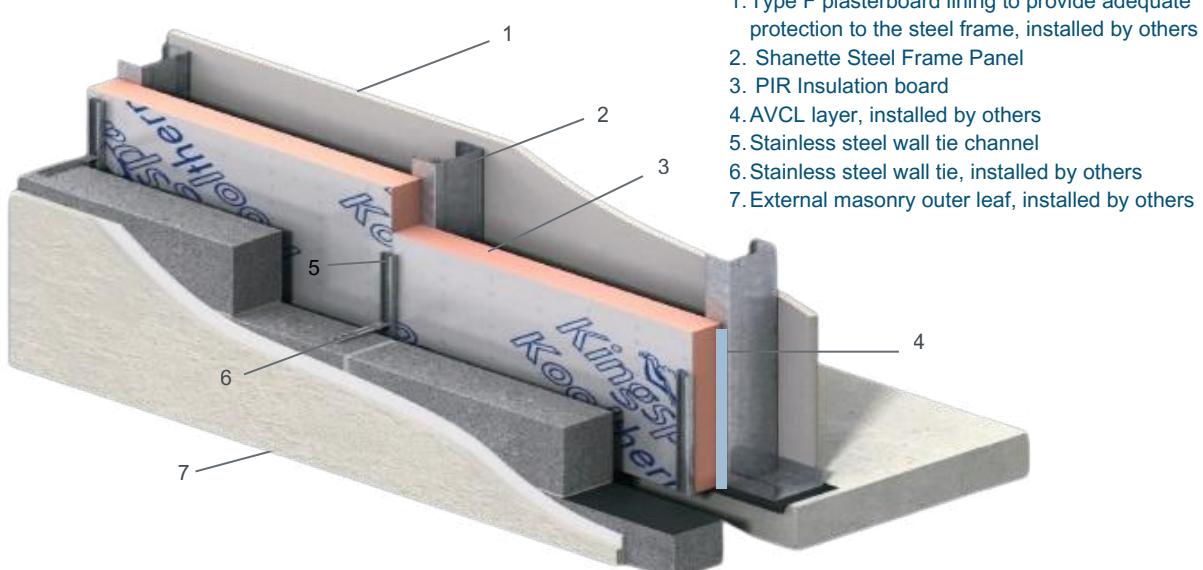
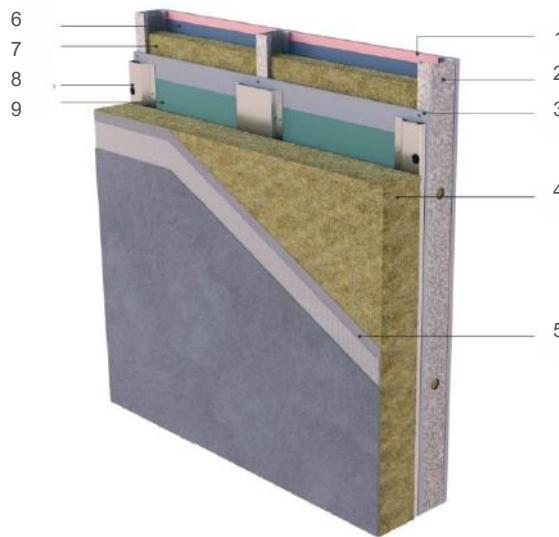


Figure 3. External Wall with PIR Insulation & Rendered Masonry Outer Leaf – Warm Frame

#### System 4. External Wall with NSAI Agrément Certified External Wall Insulation Façade System – Hybrid Frame

This advanced system uses an NSAI Agrément-certified external wall insulation façade, such as the Kilsaran External Wall Insulation (KEWI) system. It layers insulation externally and within the steel frame, delivering exceptional thermal efficiency and compliance with stringent building standards.



1. Type F plasterboard lining to provide adequate protection to the steel frame, installed by others
2. Shanette Steel Frame Panel
3. Exterior Board as per NSAI Agrément Certified External wall insulation system specification
4. Exterior Mineral Wool insulation as per NSAI Agrément Certified External wall insulation system specification
5. External render as per NSAI Agrément Certified External wall insulation system specification
6. AVCL layer, installed by others
7. Mineral wool insulation fitted between studs by others.
8. Render system's vertical rails as per NSAI Agrément Certified External wall insulation system specification
9. Breather membrane as per NSAI Agrément Certified External wall insulation system specification.

Figure 4. External Wall with NSAI Agrément Certified External Wall Insulation Façade System – Hybrid Frame

## MASONRY WALL FOUNDATION DETAIL

1. External masonry outer leaf, installed by others
2. Stainless steel wall tie channel
3. External insulation board
4. Shanette Steel Frame Panel
5. DPC layer
6. Radon barrier, installed by others
7. Thermal block, installed by others
8. Mineral wool insulation fitted between studs, installed by others
9. AVCL layer, installed by others
10. Type F plasterboard lining to provide adequate protection to the steel frame, installed by others
11. Ground floor concrete slab, installed by others
12. Ground floor insulation, installed by others

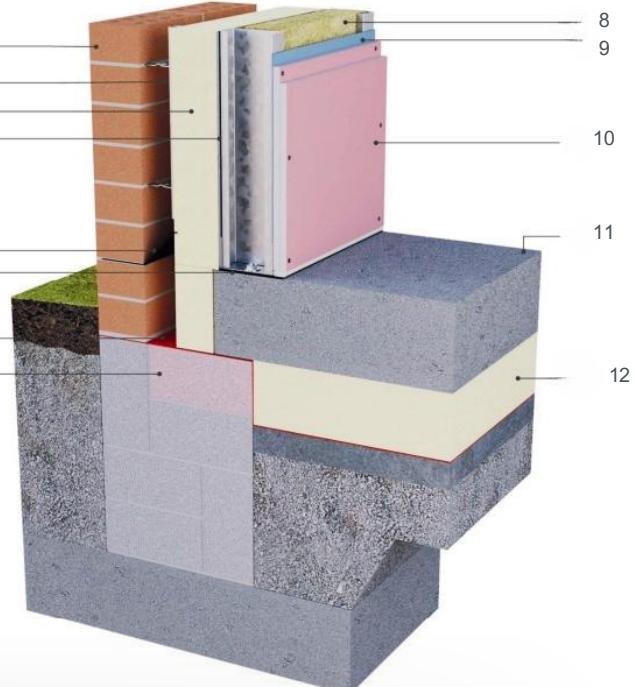


Figure 5. Masonry wall foundation detail

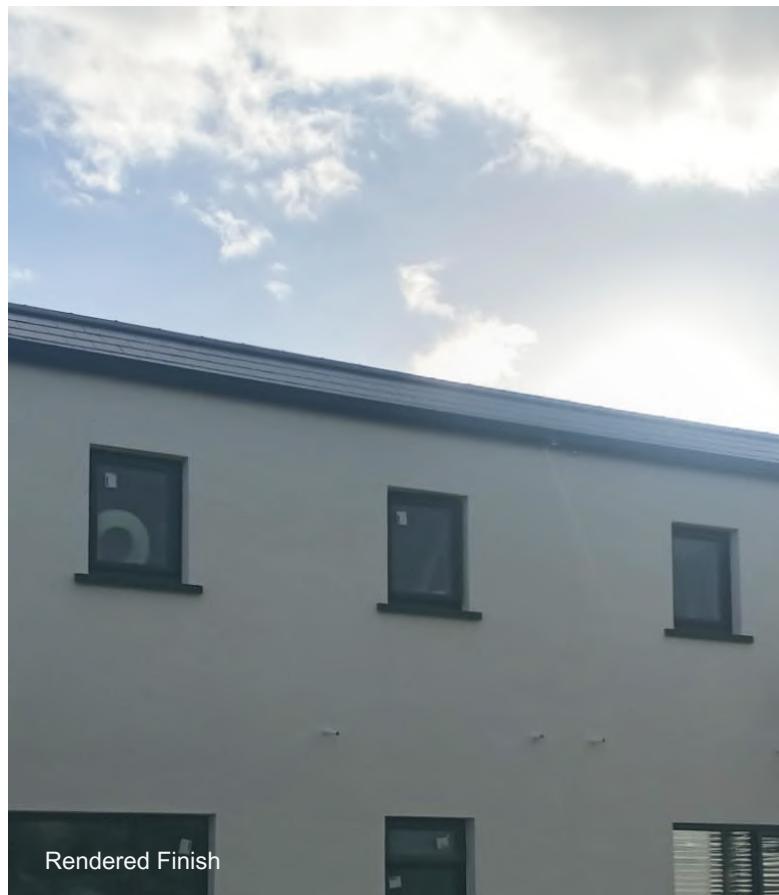
# FINISHING OPTIONS

While masonry-based wall build-ups remain the most popular choice, we also offer alternative options to achieve distinctive aesthetics and enhanced functionality.

## External Finish Options:

- Seamless cladding for a sleek, contemporary finish
- External insulation systems with acrylic render for improved thermal performance and design flexibility
- Fortex PVC foam board or Kerrafront Board.
- Burnt larch for a unique, rustic charm

With this extensive range of finishes, your steel frame home can be tailored to your vision, delivering bespoke architectural appeal that truly stands out.



# STEEL FRAME BENEFITS

## WHY STEEL FRAME?

- Planning & Design Flexibility
- Fast Production Time
- Structural Integrity
- Reduced Labour Costs
- Off-Site Manufacturing

Steel Frames offer significant advantages over traditional construction methods:



## 1 | Planning & Design Flexibility

Our experienced team guides you through the process, offering a wide range of design possibilities. We work with you to create a bespoke solution that meets your exact needs, providing 2D and 3D drawings to visualise the final product.

## 2 | Faster Production Time

Prefabrication and off-site construction at our Kilbeggan facility significantly reduce on-site construction time, allowing you to complete projects faster and meet deadlines with ease. This minimises disruption and accelerates your return on investment.

## 3 | Superior Structural Integrity

Steel frames provide exceptional strength, stability, and durability, ensuring your building withstands harsh conditions and meets stringent safety standards. Our modern manufacturing processes and CE-marked steel guarantee high-quality, long-lasting structures.



## 4 | Reduced Labour Costs

The precision engineering of our steel components enables efficient on-site assembly, minimising the need for extensive on-site labour and resulting in significant cost savings.

## 5 | Off-Site Manufacturing

Pre-assembled frames are manufactured off-site at our facility. Once on-site, the frames are simply bolted together. Pre-assembled frames can be collected on returnable stillages or delivered directly to the site by our fleet of trucks.



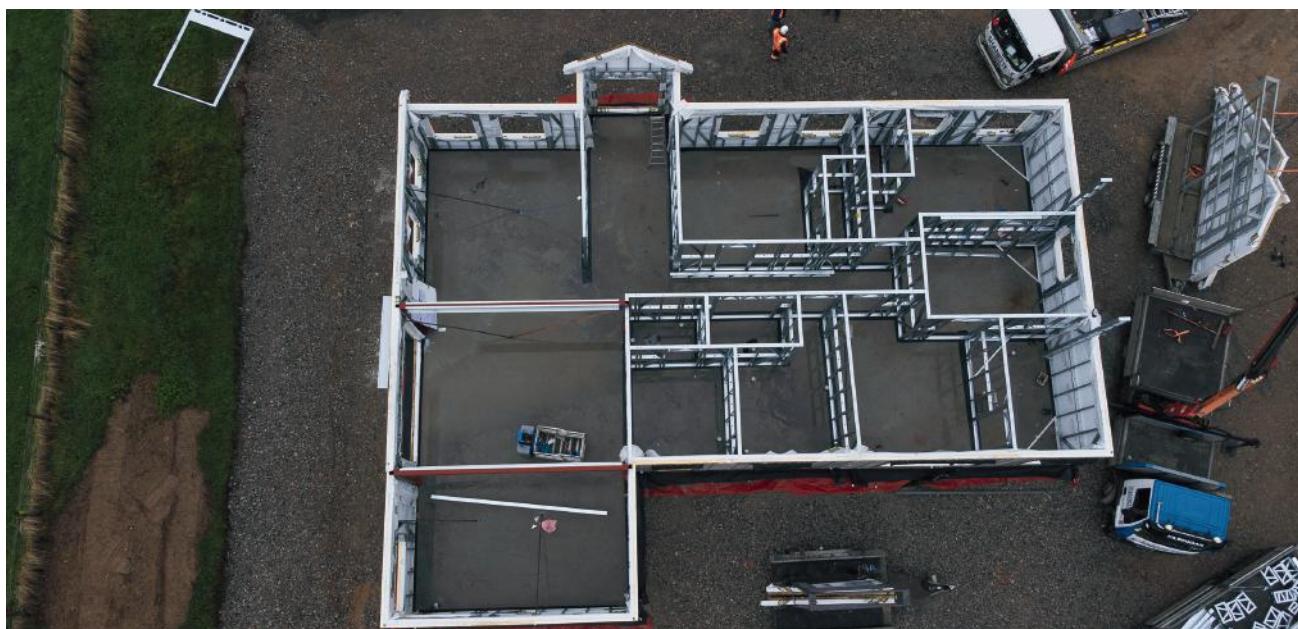
# PORTFOLIO

In the following pages, you'll find a selection of our projects, including house extensions—both outward and upward—as well as some of our most recent new builds. To explore more, visit our website. If you have any questions, feel free to contact us at our headquarters in Kilbeggan or Dublin 12.



## DORMER - CLONASLEE

This large dormer bungalow, built in Co. Laois with a floor area of 297m<sup>2</sup> (3,200ft<sup>2</sup>), was completed in just eight working days. The project featured CE-certified welded steelwork to support the first floor and roof structure. A custom Shanette-manufactured steel frame staircase further demonstrated the adaptability of our steel frame solutions for both structural integrity and design flexibility. **The external walls were built using System 1 of our wall build-up options: an external wall with PIR insulation and a masonry outer leaf – Hybrid Frame.**



# BUNGALOW - KILBEGGAN

This 19.2m x 10.7m steel-frame house, with a floor area of 205m<sup>2</sup> (2,206ft<sup>2</sup>), was built in Westmeath using System 4 of our wall build-up options. The external walls were finished with System 4 of our wall build up options: **NSAI Agrément Certified External Wall Insulation System – Hybrid Frame**.

Manufactured at our Kilbeggan headquarters, the prefabricated components ensured efficient on-site assembly while maintaining exceptional quality. This project highlights the durability and energy efficiency of our steel frame systems, meeting the highest standards of modern construction.



# RAISING THE ROOF IN MEATH!

This project was completed in two phases. Phase one involved a 21m × 5m ground-floor extension to the original bungalow, featuring a combination of a standing seam façade and Kilsaran KEWI render. Internally, the space was divided into a large dining room, kitchen, utility, and sitting room, with an outdoor area designed for summer use.

In phase two, the building contractor removed the old bungalow roof, and a precast hollow-core slab was installed to support a 15m × 8m steel-framed first-storey extension. This extension included three bedrooms, an en-suite, a bathroom, and a storeroom. The complex steel roof design incorporated trusses, three dormer windows, and a rear flat roof, while additional features included a vaulted ceiling with roof lights over the stairway.

**The external walls combined masonry with PIR insulation and the Kilsaran render system.** Thanks to prefabrication at our Kilbeggan headquarters, on-site construction was completed in just four days.



# HIPPED ROOF BUNGALOW - GALWAY

This hipped-roof bungalow, with a floor area of 215m<sup>2</sup> (2,314ft<sup>2</sup>), was constructed in just four days. Pre-insulated, off-site manufactured exterior wall panels with an A2 energy rating ensured exceptional energy efficiency. The interior walls were bolted into place, ready for plasterboard installation.

This project employed System 1 of our wall build-up options: an external wall with PIR insulation and a masonry outer leaf – Hybrid Frame. Manufactured to CE EN 1090 standards, our panels delivered top-quality results. The efficiency of off-site prefabrication enabled swift completion, allowing the site to be handed over to the builder for final finishes.



Rendered Finish with Pebble Dashing

# HOUSE EXTENSION WITH LINK CORRIDOR - ATHLONE

This impressive house extension in the Midlands featured a 13.5m x 6m steel-framed structure with a mezzanine office area above the utility room and a custom link corridor connecting it to the main house. Vaulted ceilings in the kitchen and dining area enhanced the sense of space, adding to the open and airy design.

Installed on-site in just two days, the exterior walls were insulated and finished by the builder with Burnt Larch charred timber cladding. The design seamlessly combined functionality with aesthetic appeal, creating a modern and elegant addition to the home.



# FIVE-BEDROOM HOME, DONEGAL

This striking 18.3m x 9m five-bedroom steel-framed home in Donegal spans 270m<sup>2</sup>, delivering exceptional thermal performance and contemporary design. The external walls were built using System 1 of our wall build-up options: an external wall with PIR insulation and a masonry outer leaf – Hybrid Frame.

## Key Features:

- 90mm PIR insulation with 100mm Rockwool infill panels
- 0.15 W/(m<sup>2</sup>K) for superior warmth retention and reduced energy costs
- Cassette floor system for first-floor platform
- Innovative cassette roof panels replacing traditional trusses, creating bright, open spaces upstairs

Our experienced six-man crew erected the steel frame on-site in just five days.

The result: a modern, energy-efficient family home that balances technical excellence with liveable luxury.

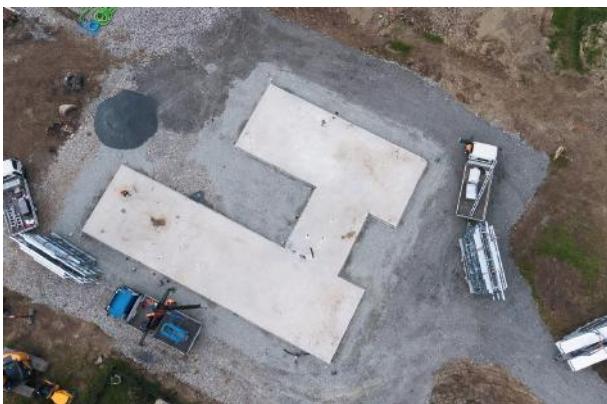


# H-SHAPED BUNGALOW!

This contemporary 260m<sup>2</sup> home features an H-shaped layout that separates sleeping quarters from open-plan living with a light-filled central corridor. The H-shaped configuration creates clear zones for shared living and private retreat in a modern, energy-efficient family home.

## Project Highlights:

- Steel frame erected in just five days
- Designed to achieve a strong U-value of 0.17 W/(m<sup>2</sup>K)
- The external walls were built using System 4 of our wall build-up options: Kilsaran KEWI System (applied by client's builder)
- Design maximising natural light and passive heating.



# THREE BEDROOM BUNGALOW, TULLAMORE

This 200m<sup>2</sup> three-bedroom home in Tullamore was constructed using a prefabricated steel frame system with 80mm PIR insulation. Following detailed pre-planning and coordination, the insulated frame was installed on site within a matter of days. The project has since progressed with the roof installed, windows and doors fitted, and the external walls block-built and rendered by the client's appointed builder. **The external walls were built using System 1 of our wall build-up options: an external wall with PIR insulation and a masonry outer leaf – Hybrid Frame.**

## Project Highlights:

- 200m<sup>2</sup> three-bedroom steel frame house
- Prefabricated insulated steel frame with 80mm PIR
- Rapid on-site erection following detailed pre-planning
- Roof installation, windows and doors fitted post-installation
- External blockwork and render completed by the builder



# STANDING SEAM EXTENSION

This contemporary 5.8m x 4.9m kitchen extension was built using Shanette's steel frame system.

The exterior was finished with modern standing seam cladding, creating a sleek and timeless aesthetic. Inside, a vaulted ceiling enhanced the sense of space in the kitchen and dining area. Prefabricated off-site in sections, the extension was constructed quickly with minimal disruption to the family, ensuring a fast and efficient build.



# HOUSE EXTENSION KILBEGGAN

This 5.8m x 4.9m kitchen extension was built using Shanette's modern Standing Seam Extension system. Prefabricated off-site, it was securely weathered into place with minimal disruption to the family, ensuring a fast and efficient installation.



# CHECKLIST

Please review the information on our website and our brochure to gain a clear understanding of our operations. At Shanette, we are not a building company; we are a specialist off-site steel frame manufacturer. We construct the superstructure of your project – including exterior walls, interior walls, and roof trusses – all produced as panels and sections in our factory. These components are then transported to your site and installed in just a matter of days.

Please note that we install the house panels on foundations prepared by others. Once we have completed the structural frame, you or your builder can proceed with the remainder of the construction.

Our steel frame buildings are designed to suit most projects. However, as with any job, the more customised and off-standard your design is, the higher the cost. Therefore, if you are working within a budget, we recommend keeping your design both innovative and straightforward.

To provide you with an accurate quote for your steel frame structure, please supply the following details:

## WHAT DO WE NEED FROM YOU TO PROVIDE A QUOTE?

- **Architect / Engineer:**  
Are you working with an architect or engineer?
- **Accurate Drawings:**  
Do you have a complete set of drawings for your project?
- **Planning:**  
Have you planning permission?
- **Wall Type:**  
Decide if you will be using masonry walls or external insulation and render?
- **Exterior Wall Build-Up:**  
Have you chosen an exterior wall build-up for your project?
- **Target U-Value:**  
Have you selected a target U-value for your exterior walls?

Providing this information will help us better understand your project requirements and offer you a competitive and accurate quote. If you have any questions or need further assistance, please do not hesitate to get in touch.

## CONTACT US TODAY!

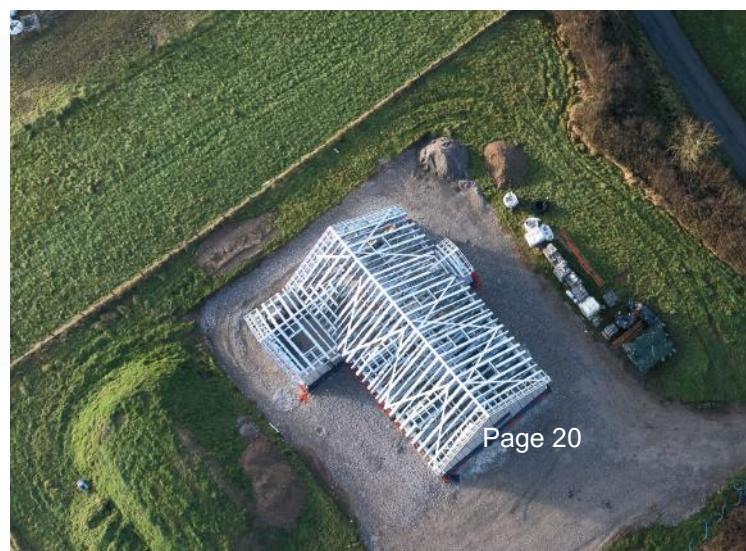
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# OUR CERTIFICATION AND COMMITMENT TO EXCELLENCE

All Shanette buildings are manufactured in Ireland at our Kilbeggan facility, using controlled systems designed to meet strict EU requirements for structural steel. Our processes, materials, and systems are independently certified to ensure consistent quality, structural integrity, and long-term performance.

## Certification & Compliance

### 1) NSAI Agrément Certification – Certificate No. 22/0432

The Shanette Steel Frame Building System is certified under NSAI Agrément Certificate 22/0432. This independent technical certification confirms the system's fitness for purpose and suitability for use in construction, having been assessed for performance, durability, and compliance with relevant Irish building requirements. It provides designers, builders, and homeowners with clear, third-party assurance that the system is suitable when used as specified.

### 2) I.S. EN 1090-1:2009 + A1:2011 (EXC 2) CE Certification

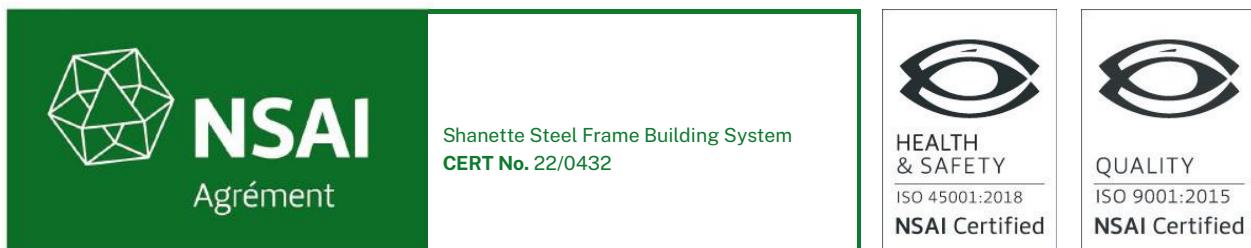
This certification confirms that our steel buildings meet European safety and quality standards for structural steel. It verifies that Shanette's systems, processes, and factory production controls are compliant and that our structures are manufactured for long-term structural performance.

### 3) I.S. EN ISO 9001:2015 Quality Management

ISO 9001 is an internationally recognised quality management standard. Certification is awarded following independent assessment by an accredited certification body. At Shanette, it reflects our structured approach to continuous improvement across design, manufacturing, and supply processes.

### 4) I.S. EN ISO 45001:2018 Occupational Health & Safety

This international standard recognises our commitment to occupational health and safety. Achieving ISO 45001 means Shanette has robust systems in place to protect our team, manage risks, and maintain safe working environments. For our clients, it provides reassurance that every project is delivered with safety as a top priority.



I.S. EN 1090 - 1:2009 + A1:2011 (EXC 2)

I.S. EN ISO 9001:2015 Certification:

I.S. EN ISO 45001:2018 Certification:



# THESE CERTIFICATIONS MATTER TO YOU?

When you choose Shanette, you are choosing more than a building. You are choosing a manufacturing process that is independently assessed, consistently controlled, and designed for long-term performance.

- **Confidence in structural performance**

Certified systems and EN-standard structural-grade steels support strength, stability, and resistance to wind and environmental loads.

- **Independent technical assurance**

NSAI Agrément Certificate 22/0432 provides third-party validation that the Shanette Steel Frame Building System is suitable for its intended use when installed in accordance with the certification.

- **Consistent quality, every time**

ISO 9001 ensures repeatable processes, traceability, and continual improvement throughout design and manufacturing.

- **Safety-led delivery**

ISO 45001 confirms that health and safety are embedded into how our buildings are manufactured and installed on site.

Our commitment to quality is evident in our certified systems and CE-marked processes. Every stage of design, manufacturing, and supply is managed by our qualified and experienced team, ensuring a durable solution that meets your needs and adds value to your property.

## The Following Ancillary Certs are provided by Shanette



ACE/EI-BCR 1401

(Ancillary Design Certificate)  
Ancillary Certificate of Compliance : Design  
Commencement Notice | 7 Day Notice



ACE/EI-BCR 1402

Ancillary Certificate of Compliance on Completion  
(Ancillary Completion Certificate)  
Design of the works



ACE/EI-BCR 1403

Ancillary Certificate of Compliance on Completion  
(Ancillary Completion Certificate)  
Inspection Plan



CIF / 01

Ancillary Certificate of Compliance on Completion  
Certificate signed by sub-contractor| Specialist Contractor |  
Specialist assigned by the builder | Main contractor on completion



RIAI ACD 02

Ancillary Certificate of Compliance : Design  
Commencement Notice | 7 Day Notice  
To be completed by a specialist or unregistered consultant



RIAI ACCD 02

Ancillary Certificate of Compliance : Design  
(Completion)  
To be completed by a specialist or unregistered consultant



RIAI ACI 02

Ancillary Certificate of Compliance on Completion  
(Ancillary Completion Certificate - Inspection)  
To be completed by a specialist or unregistered consultant



## Ready to build? Get in touch!

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