Rialtas na hÉireann
Government of Ireland

MMC & Standardised Design Approaches

Climate and Construction Innovation Unit, DHLGH

NBCO CPD Day, 8th April 2026

Contents

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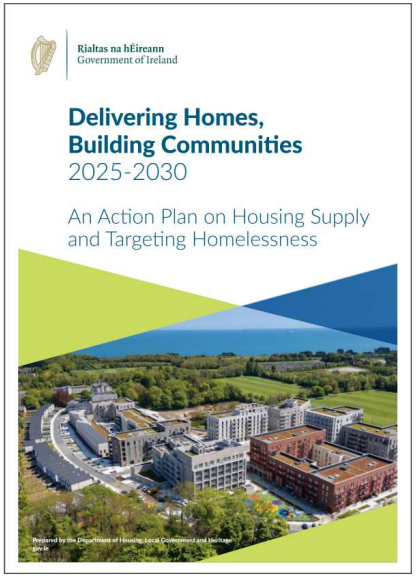
1. MMC in Delivering Homes, Building Communities

Delivering Homes, Building Communities



- Target of 300,000 new homes by 2030
- 36,200 delivered in 2025
- Over €9 billion capital funding for housing in 2026
- Two pillars – Activating Supply & Supporting People

- Pillar 1, Chapter 3 – Increasing Skills and MMC Adoption
- **MMC** continues to be a ***'key measure** to speed up delivery, improve productivity and reduce cost.'*

Chapter 3 - Increasing Skills and MMC Adoption

Priority:

Increase skills and support the adoption of Modern Methods of Construction in the residential construction sector

No.	Action	Owner
3.1	Use Modern Methods of Construction in at least 25% of all new social and affordable homes built during the lifetime of the Plan.	DHLGH
3.2	Increase the use of 3D volumetric systems by providing funding and support for pathfinder projects in Limerick (SMART Homes) and Wexford (3D volumetric units) to create demand for these innovative systems.	DHLGH
3.3	Optimise the process towards NSAI Agrément Certification by: • promoting the NSAI Agrément Toolkit with industry; and • undertaking a root cause analysis to identify constraints on the certification process.	DETE, DHLGH
3.4	Scope the potential for the development of an Irish Standard for Light Gauge Steel.	DETE, DHLGH, NSAI
3.5	Promote opportunities for MMC manufacturers to use ISIF backed funds to support new and existing factories.	DFIN, ISIF
3.6	To meet the growing demand for construction and MMC skills: • renew the *Action Plan to Promote Careers in Construction*; • launch a new *5-year Action Plan for Apprenticeships (2026–2030)*; and • continue to invest in The National Construction Training Campus.	DFHERIS, DHLGH
3.7	Work with partners to deliver on the *National Framework for Meeting Priority Construction Workforce Needs*.	DFHERIS
3.8	Continue to expand MMC training for the construction sector	DFHERIS
3.9	To encourage and support the development of the Small and Medium Enterprise homebuilder sector, the Land Development Agency will actively seek to engage the sector in the roll out of its LDA Regional programme of work.	DHLGH
3.10	Double overall investment under Enterprise Ireland's *Built to Innovate* programme, to drive adoption of efficient construction practices and the use of MMC.	DETE, EI
3.11	Introduce a tailored training and mentorship programme on Strategic Financial Leadership for residential construction enterprise supply-chain clients.	DETE, EI, DFIN

Chapter 3, Section 3.4 - Standardised Design

‘As identified in the **Residential Construction Cost Study (May 2023),** reducing construction costs through standardisation is key to supporting the delivery of housing. Standardisation is also central to optimising housing delivery with MMC. Government will again leverage its significant capital investment in housing by encouraging the use of standardised design, including by way of mandating standardisation where possible.

The Department of Housing, Local Government and Heritage has published standardised designs for social housing and the use of the **Design Manual for Quality Housing** and the **Employer’s Requirements for Detail Design of Quality Housing** for social housing will be mandated.

In June 2025, Government published the **Design Guide for State Sponsored Student Accommodation**. It defines best practices and aims to ensure value for money for the State, while supporting the delivery of additional student accommodation…

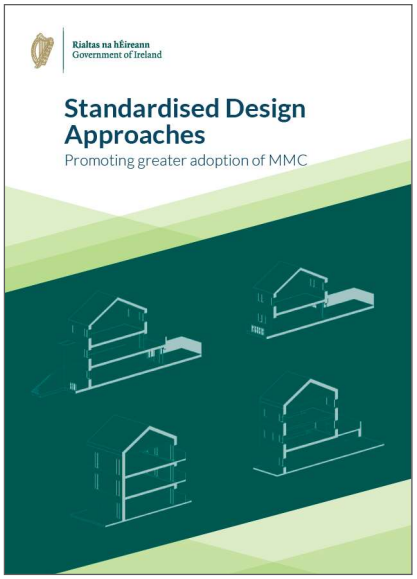
Additionally, Government is committed to encouraging standardisation across the private sector and has recently published the new **Standardised Design Approaches – Promoting greater adoption of MMC** in housing. This provides guidance to industry on design considerations for incorporating MMC into their schemes.’

Rialtas na hÉireann
Government of Ireland

2. Standardised Design Approaches

- Promoting greater adoption of MMC

Standardised Design Approaches Study



Commissioned by **DHLGH, published in Oct 2025**

*Aim is to promote **greater use of standardised design approaches** to reduce cost and enable greater adoption of MMC, while maintaining high quality design and maximising sustainability*

- HfA 2023 Update Action 11
- Consultant team led by Hawkins\Brown Architects
- Stakeholder engagement key throughout
- Building on existing guidance
- Aligned with SRD&CD Guidelines density ranges
- Focus on medium-density

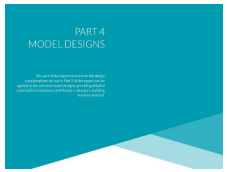
Standardised housing design to reduce costs and optimise housing delivery

Report Structure

1. Context and Scope
   - Background, Benefits and Opportunities, Literature Review, Regulations and Standards including Agrément certification

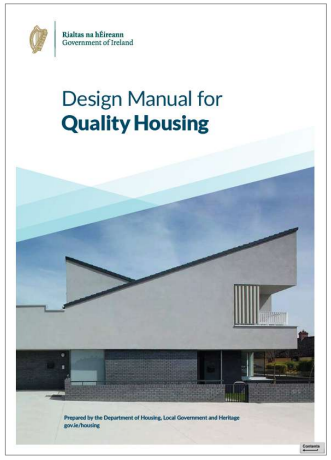
2. Dwelling Selection
   - Selected Model Designs, Site Considerations – Density, Mix, Parking, Universal Design provision

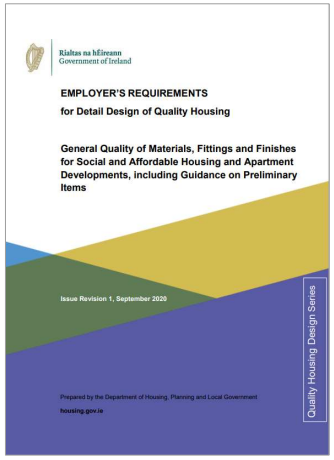
3. Design Considerations
   - Transportation, Manufacturing, Structural Grids, Interchangeable Typologies, Repeatable Components, Flexible Wall and Floor Build-ups, Building Services Components, Embodied Carbon Calculations, Façade Design and Variation

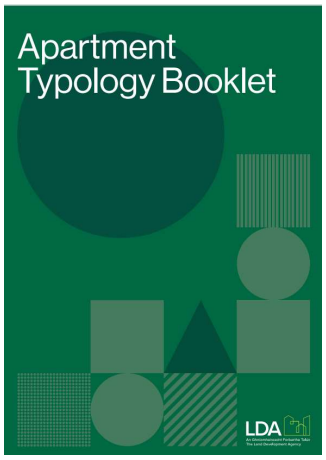


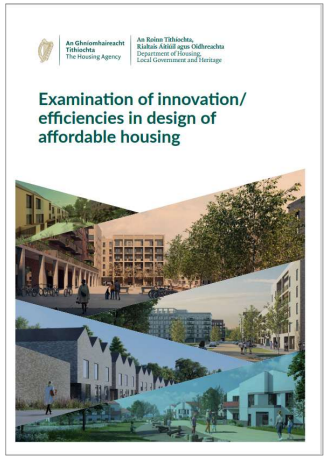
4. Model Designs
   - Architecture, Structural Engineering, Building Services incl. Energy-Efficiency, Construction Costs

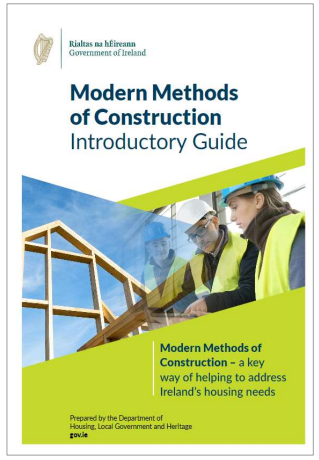
Literature Review



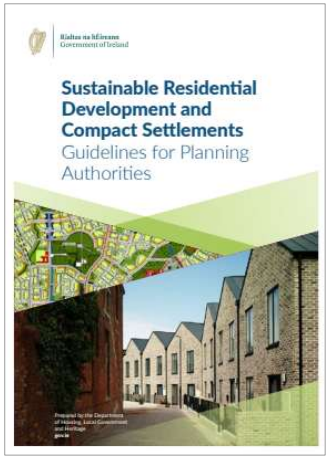


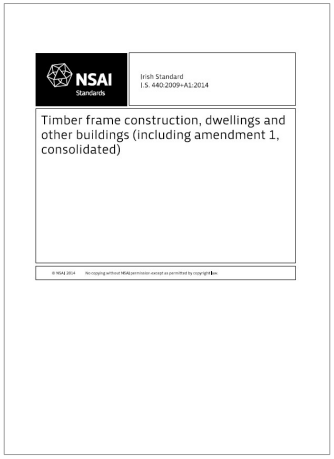


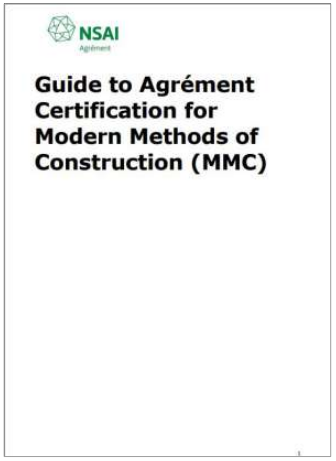




Regulatory and Standards Context





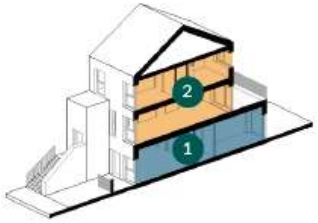


Selecting Model Designs

H1

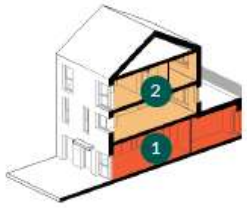
Occupancy	3B5P
Landtake	154.2m²
Internal area	102m²
Area/min. req.	110%
Aspect	Dual
Own Door	Yes
UD	No
Form factor	2
No. Bathrooms	2 (no ensuite)
Depth (m)	8.4m
Width (m)	6.05m
Notes	Terrace Typology

D1



	❶	❷
Occupancy	2B4P	3B5P
Landtake	183.5m²	
Internal area	75m²	108m²
Area/min. req.	103%	117%
Aspect	Dual	Dual
Own Door	Yes	Yes
UD	No	No
Form factor	1.7	
No. Bathrooms	1(no ensuite)	2(no ensuite)
Depth (m)	14.75	11.38
Width (m)	5.7	5.7
Notes	Ensuite removed	

D2

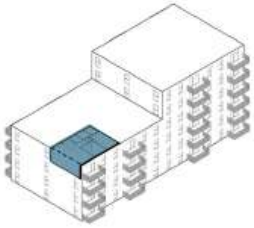


	❶	❷
Occupancy	2B3P UD	3B5P
Landtake	174m²	
Internal area	74.8m²	119m²
Area/min. req.	103%	130%
Aspect	Dual	Dual
Own Door	Yes	Yes
UD	Yes	No
Form Factor	1.6	
No. Bathrooms	1 (no ensuite)	2 (no ensuite)
Depth (m)	12.45	8.4
Width (m)	6.69	6.69
Notes	Ground floor dwelling can be 2B4P or 2B3P UD+	

T1

	❶	❷	❸
Occupancy	1B2P	1B2P	2B3P
Landtake		174m²	
Internal area	52m²	64m²	89m²
Area/min. req.	115%	143%	141%
Aspect	Dual	Dual	Dual
Own Door	Yes	Yes	Yes
UD	Yes	No	No
Form Factor		1.5	
No. Bathrooms	1(no ensuite)	1(no ensuite)	1(no ensuite)
Depth (m)	8.4	8.4	8.4
Width (m)	8.6	8.6	8.6
Notes	Corner typology can be terraced with first floor dwelling accessed from rear		

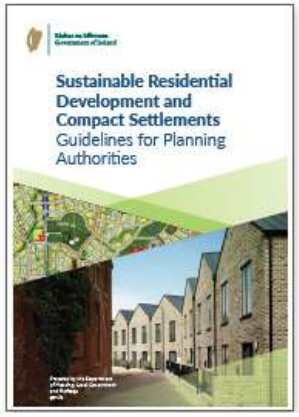
A1

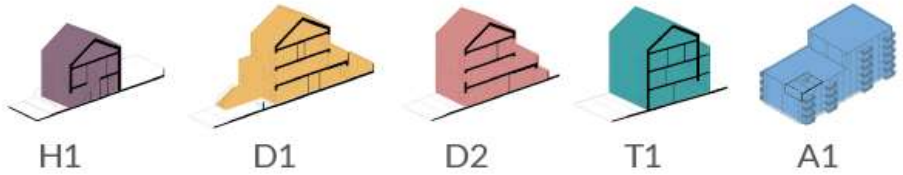


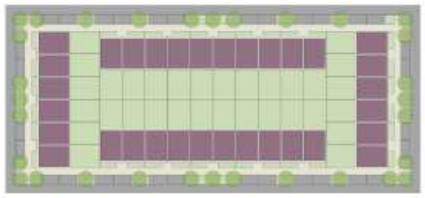
Occupancy	2B4P
Landtake	n/a
Internal area	74m²
Area/min. req.	101%
Aspect	Single/Dual
Own Door	No
UD	No
Form Factor	0.4
No. Bathrooms	1 (no ensuite)
Depth (m)	7.25
Width (m)	10.16

Density Studies

- Density studies: 46 – 88 DPH
- Medium density typologies
- Dwelling mixes: 1B2P – 3B5P
- 0.5 - 1 parking ratio
- 10-15% open space
- Universal Design provision (up to 30%)



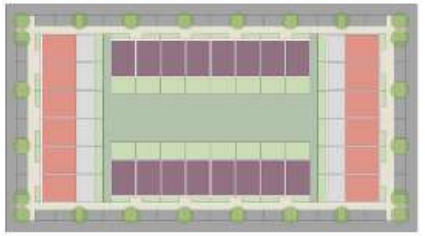




Mix 01
1B2P 0%
2B3P 0%
2B4P 0%
3B5P 100%

UD 0%

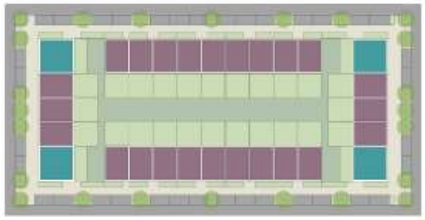
DPH **46-50**



Mix 04
1B2P 0%
2B3P 30%
2B4P 0%
3B5P 70%

UD 30%

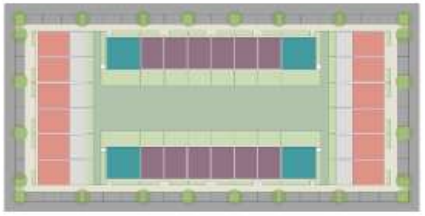
DPH **64-70**



Mix 02
1B2P 22%
2B3P 11%
2B4P 0%
3B5P 67%

UD 11%

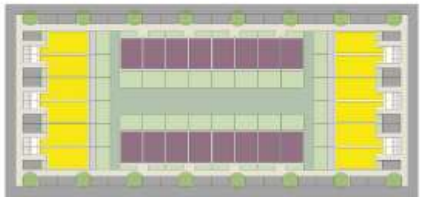
DPH **54-60**



Mix 05
1B2P 16.7%
2B3P 8.3%
2B4P 25%
3B5P 50%

UD 33.3%

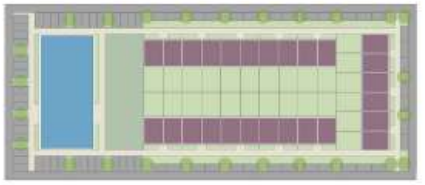
DPH **70-77**



Mix 03
1B2P 0%
2B3P 0%
2B4P 30%
3B5P 70%

UD 0%

DPH **58-64**



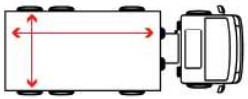
Mix 06*
1B2P 24%
2B3P 11%
2B4P 24%
3B5P 41%

UD 30%

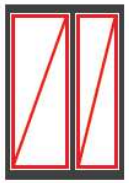
DPH **78-88**

Design Considerations

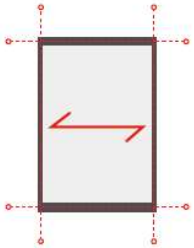
1. Design for transportation



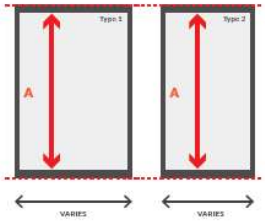
2. Design for manufacturing



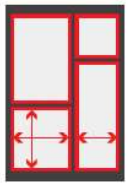
3. Allow for flexibility in structural designs



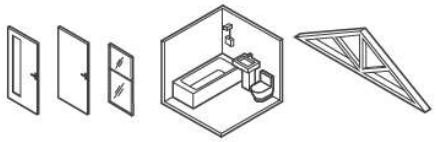
4. Interchangeable typologies



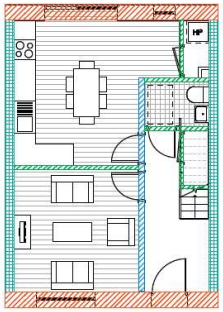
5. Flexible build ups



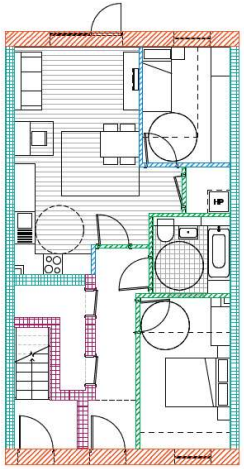
6. Utilise repeatable components



MMC Flexible Wall Build-ups & Embodied Carbon Calcs



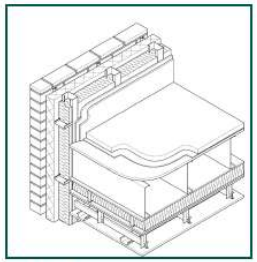
H1 Example



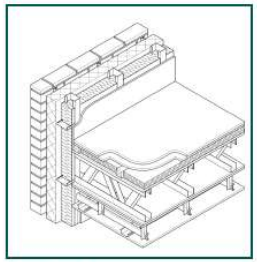
D2 Example

Wall Type	Performance Requirements	CAT 2 MMC			CAT 7 MMC	CAT 1 MMC	Model Design		
		LGS	Timber Panel	Precast Concrete	ICF	LGS	H1	D1/ D2/T1	A1
External	U-Value – 0.18 W/m²K	880.5mm	869mm	940.5mm	882.5mm	822.5mm	540mm	540mm	540mm
Compartment Wall (without service zones)	60 mins Min. 53 db	810mm	806mm	200mm	825mm	819mm	-	825mm	-
Compartment Wall (with service zones)	60 mins Min. 53 db	405mm	401mm	801mm	825mm	417mm	417mm	417mm	417mm
Internal Load Bearing Wall	N/A*	125mm	125mm	N/A	N/A[3]	205mm[4]	205mm[4]	125mm	125mm
Internal Non-Load Bearing Wall	N/A	90mm	115mm	N/A	90mm	115mm	125mm	125mm	125mm

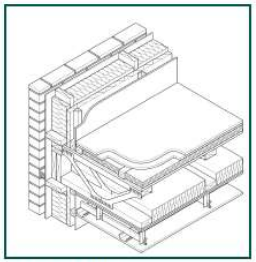
1. ICF does not require load bearing walls in H1+D2.
2. Dimension calculated at module abutment.
3. Cat 1 LGS Internal load bearing wall is exclusive to H1.
4. The fire rating of the Internal Load Bearing Walls will depend on the height of the building.



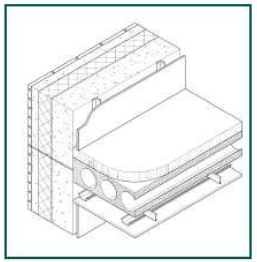
CAT 1 LGS



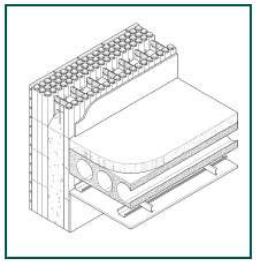
CAT 2 LGS



CAT 2 TIMBER



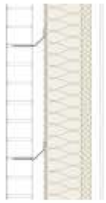
CAT 2 PRECAST



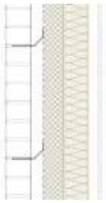
CAT 7 ICF

Façade Design – Houses H1 and Triplex T1

Precast Concrete Façade System



Brick with Timber Frame Panel Façade System



Brick with LGS Structure Façade System

ICF Façade System

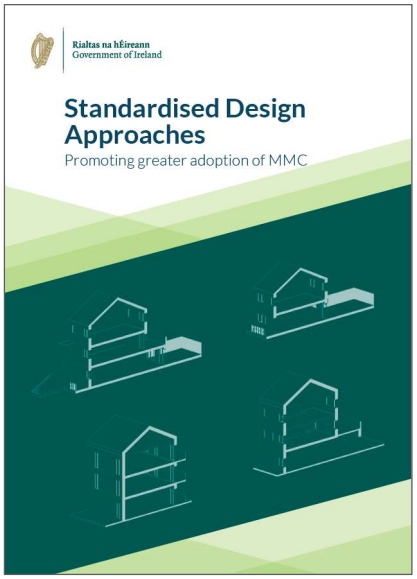
Rainscreen with LGS Structure Façade System

Rainscreen with Timber Frame Façade System

Variation in Triplex Elevational Treatment

Typical Street Elevations using Variation in Façade Treatment

Dissemination – DFHERIS/DHLGH



Led by **DFHERIS with DHLGH, 2025 - 26**

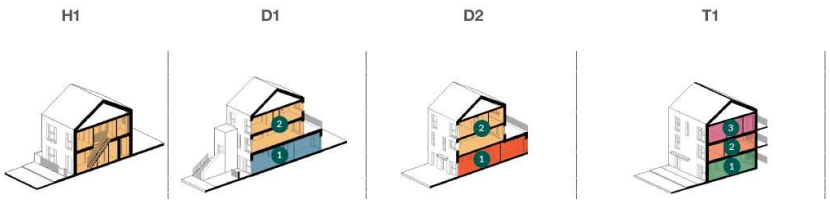
Aim is to disseminate report information for use across public and private sectors

- Dissemination Strategy developed in May/June 2025
- Stakeholders identified – HE, FET, Professional bodies, State agencies
- Dissemination workshop held on 2nd July, chaired by UCD
- Presentations made at a number of conferences and events in H2 2025 / H1 2026
- Two work packages for education and training providers commissioned in Oct 2025
  - To be made available in H1 2026
- Webinars in H1 2026
  - ConstructInnovate - 20th Jan 2026; CITA Skillnet - Date TBC
  - Presentations at conferences and events
- Additional MMC cost information to be published in H1 2026 by DHLGH

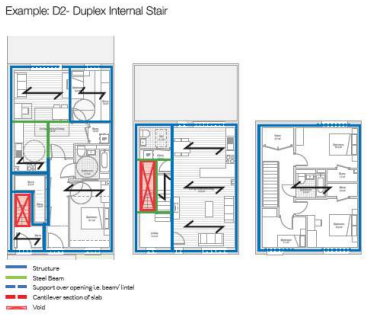
Dissemination Work Package 1 – DFHERIS/DHLGH

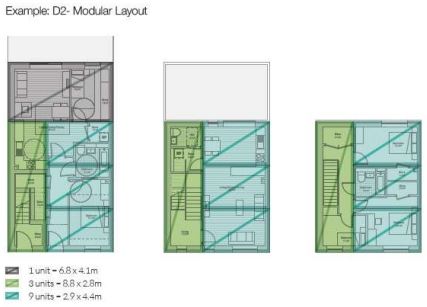
Digital (Revit/IFC) Models

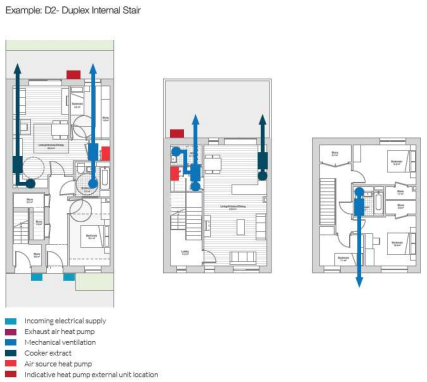
Aim is to disseminate understanding of MMC technology



- General Arrangement Files with Structure & Building Services Layers
- Will include typical elemental build-ups and components
- Four no. MMC technologies utilised
- Digital models will be provided to educators/training providers for educational purposes only
- Available in H1 2026







Dissemination Work Package 2 – DFHERIS/DHLGH

Educational Pack – Slide deck and Teaching Notes

Aim is to disseminate understanding of MMC technology

- Educational Slide Deck and Teaching Notes
- Overview of key objectives and learner outcomes in each section
- To be provided to educators/training providers for educational purposes only
- Available in H1 2026

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3. Single Approval Process for Social Housing & Standardised Design

Single Approval Process

DHBC Action 6.1 - Support additional social housing delivery by: streamlining processes and introducing a new single stage approval for all social housing projects where the project value is less than €200m; mandating the use of standard house layouts and specifications as part of the new approval process; supporting and facilitating the use of Modern Methods of Construction (MMC) through a standardised design approach; embedding the use of a Design and Build contract approach in all local authorities and the AHB sector in order to expedite the delivery of social housing; introducing a revamped renewal programme tackling dereliction and vacancy in social housing; and expanding and streamlining the operation of the Land Acquisition Fund.

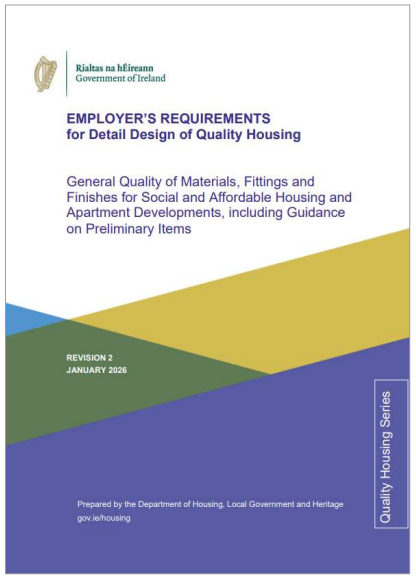
- On 1 July 2025, the Government approved a new Single Stage Approval Process for social housing projects up to €200 million. This new process applies from 9 January 2026. The revised process streamlines the previous 4 stage approval process to a Single Approval point (pre planning).

- Mandatory use of Design Manual for Quality Housing & Employer's Requirements is embedded within the new process. An acceptable equivalent standardised design approach may also be considered.

Design Manual for Quality Housing (2022+)

- Guidance on the design of residential site layouts and internal layouts of new apartments, duplexes, houses, community dwellings, and UD dwellings
- All individual unit type layouts available digitally to facilitate adoption
- A standardised design approach is also recognised as being key in facilitating ease of adoption of MMC. All the design manual layouts allow for construction utilising 2D panelised systems.
- Following consultation with industry, a limited number of designs have been adjusted to allow for ease of delivery utilising different forms of MMC, including 3D volumetric systems.

Employer's Requirements (2026)



- Partner guidance document with an outline standard specification, which sets out the general quality of materials, finishes and fittings that are eligible for Department funding.

- Both documents:
  - provide certainty as to what is considered appropriate for Department-funded projects and facilitates MMC
  - enable a more efficient Department sign off and approval process
  - provide a benefit to industry with efficiencies in tendering, supply, and programming as a result of a more standardised set of works requirements

Accelerated Delivery Programme & Regional Frameworks

- Over 1,260 homes have been tendered across the programme to date, with approx. 1,200 of these units now on site. (25 sites)

- An additional 905 homes have been tendered (28 sites) for projects outside of the programme, with further projects under development.

Group 1	Group 2	Group 3	Group 4	Group 5
Meath	Sligo	Limerick	Kilkenny	Dun Laoghaire Rathdown
Louth	Roscommon	Clare	Waterford	Kildare
Westmeath	Mayo	Cork City	Tipperary	South Dublin
Cavan	Leitrim		Wexford	
Longford	Donegal		Wicklow	
Monaghan	Galway City		Carlow	
	Galway County			

Greenfields 65 TF dwellings, Maynooth – ADP project, Co. Kildare

Accelerated Delivery Programme & Regional Frameworks

- Connacht Grove is an exemplary demonstration of effective collaboration between Meath County Council, the full design team and the contractor, and highlights the tangible benefits of combining MMC with disciplined, team-based delivery methods.
- Main contractor Cunningham Contracts applied a LEAN construction approach.
- Connacht Grove comprising 47 dwellings completed within a 43-week construction period.

Connaught Grove 43 TF dwellings – ADP project, Co. Meath

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4. Update on other DHBC MMC Actions

25% MMC target for Public Housing

DHBC Action 3.1 - Use Modern Methods of Construction in at least 25% of all new social and affordable homes built during the lifetime of the Plan.

- DHLGH chairs working group meeting monthly since Jan 2025. Members include DHLGH Housing Divisions, LGMA, LDA, Housing Alliance members, NDFA, Housing Agency, DPEIPSRD.
- Method to gather MMC data through TRABIS system identified and being developed.
- Accelerated Delivery Programme and Regional Frameworks evidence strong MMC use in social housing delivery with the Design & Build form of contract (CWMF PW-CF2).
- Additionally, *DHBC Action 7.9 – Develop standardised designs and specifications for Starter Homes to support cost efficiency by delivery partners, driving lower prices and improved value for money*

Cat 1 3D Volumetric/Modular Pathfinder Projects

DHBC Action 3.2 - Increase the use of 3D volumetric systems by providing funding and support for pathfinder projects in Limerick (SMART Homes) and Wexford (3D volumetric units) to create demand for these innovative systems.

- Wexford CC progressing a pilot project comprising 22 Category 1 (3D Volumetric) houses at a site in New Ross (Cluain Fada), procured using a Design & Build approach (specifically calling for Cat 1 (3D Volumetric) proposals). A competitive tender process was undertaken and following assessment of returns, a preferred tenderer has been identified. Department approval has now been granted and contract award is imminent.

- Limerick CCC progressing the SMART Homes programme with about 150 homes to be delivered on 2 sites in Limerick City in the pathfinder project.

- DHBC commits to developing further pathfinder Cat 1 (3D Volumetric) projects.

Light Gauge Steel Standard & STANDARDIZE research

DHBC Action 3.4 - Scope the potential for the development of an Irish Standard for Light Gauge Steel.

- NSAI have established a Technical Committee for the development of a Light Gauge Steel Standard. First meeting scheduled for mid-April 2026.
- ConstructInnovate research project STANDARDIZE progressing in its 2nd year with LGS the MMC system selected for development of design details and testing.
- STANDARDIZE stakeholder working group (53 members) meeting monthly.
- STANDARDIZE progressing gap analysis and mapping of existing LGS Agrément certificates.
- STANDARDIZE review of Part L ACDs progressing.

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Thank you

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