

Technical Standards and Competency

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- Upcoming Challenges and Changes
- Technical Research Update
- Technical Competency
- Hot Topics
- Standards Update

Upcoming challenges and changes

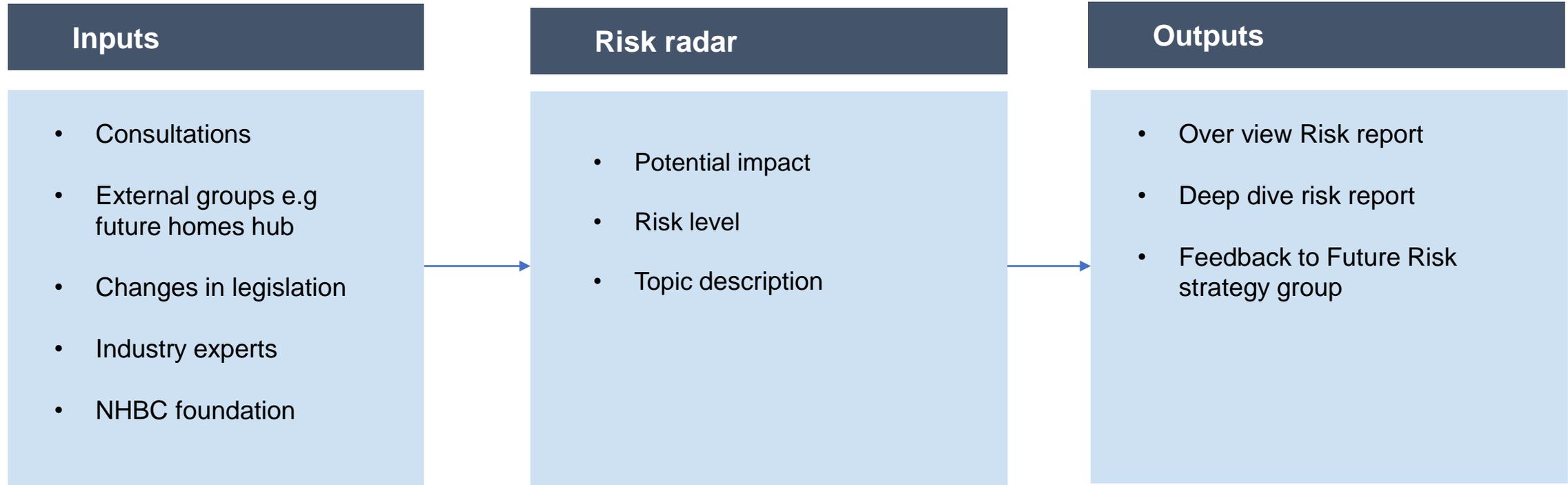
- Interim uplifts F, L, O & S – England 15th June, Wales 23rd November, Scotland 1st December 2022
- Future homes standard – 2025 England and Wales, 2024 Scotland
- Changes to ABB – England 1st December 2022
- Approved document R? – Consultation phase potential change coming soon?
- Changes to Approved document M – upcoming consultation 2022
- Building Safety Bill – Consultation on going legislation
- BS 9991
- London Fire Brigade
- Approved document Z – Embodied carbon
- Product standard changes – CPR regulations, safety critical products etc
- OPSS

Technical Research

- Not just the NHBC Foundation
- Industry consultations
- Implementation
- Horizon scanning
- Mitigating future risks



How NHBC mitigate technical risk?



Challenges, upcoming and recent

- Amount of change
- F,L,O & S
- SAP
- Clarity – ADB
- Commencement strategy's and tracking



Technical Competency

We need to demonstrate our Technical Competency as a business

- Building Safety Regulator
- Registered Building Inspector
- Building Control Body
- Skills gap analysis
- Building on strengths
- UKAS



NHBC Standards Update

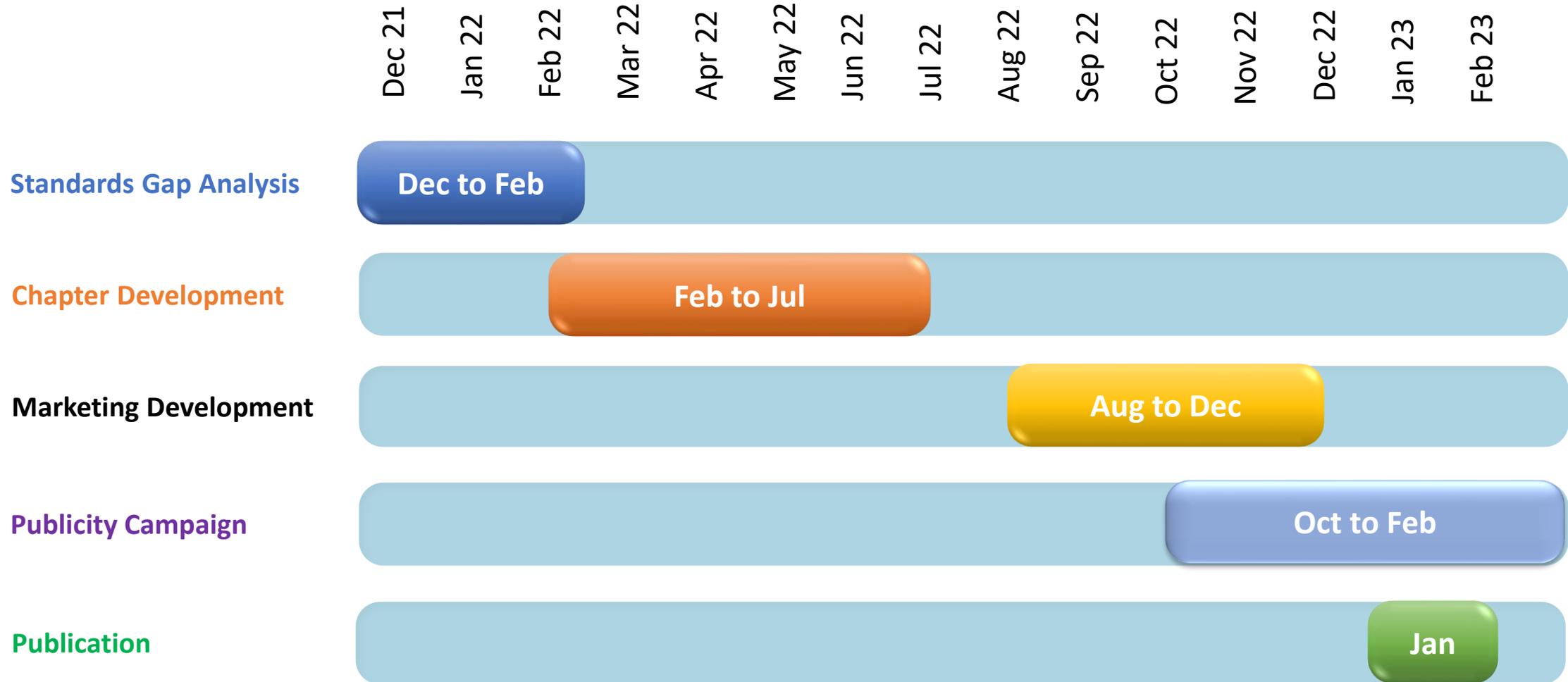


Contents

- NHBC Standards 2023 Delivery Programme
- Hot Topics
- Improvements to NHBC Standards Delivery
- NHBC Standards 2023 Amendments
- The Future NHBC Standards Delivery Programme
- Future NHBC Standards Vision



Project Timeline - NHBC Standards 2023



What's Improved?

- Improved delivery programme
- More robust gap analysis to take place
- More content delivered – 4 times as much as 2021!
- Renewables Incorporated – Heat Pumps
- Implications of Part L covered to some extent – Increasing Cavity Widths but more updates will take place in 2024 Standards
- Increased Team Size – Skills Gaps Identified (CAD / Fire / Electrical / Mechanical Heating and Ventilation – Increased Output 2023 and beyond

What Changed?

UPDATED CHAPTERS

CHAPTER 2.1

CHAPTER 3.2

CHAPTER 3.3

CHAPTER 5.1

CHAPTER 5.3

CHAPTER 5.4

CHAPTER 6.1

CHAPTER 6.2

CHAPTER 6.4

CHAPTER 6.7

CHAPTER 6.8

CHAPTER 7.1

CHAPTER 7.2

CHAPTER 8.1 to 8.3

CHAPTER 9.5

CHAPTER 10.1

Standards and Technical update

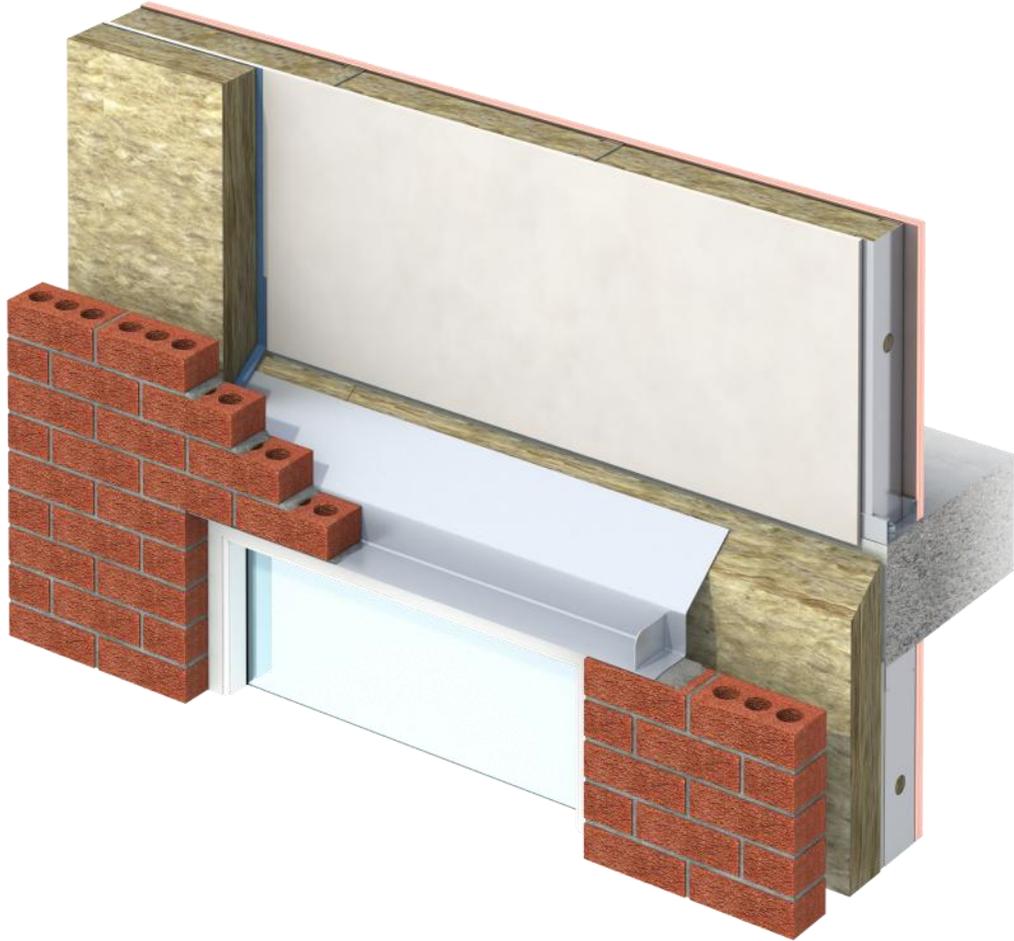
NHBC Standards 2023 Summary of Major Changes

Technical Requirement R3 – Additional provision to be included to cover the requirement for 3rd Party Certification for Non Regulated Construction Products, Materials and Systems

- Technical Requirement R 3(a) iv which relates to Technical Approvals Bodies to be updated and align with Technical Guidance Note 2.1/20
- Technical Requirement R 3 (a) v which relates to acceptance of Historic Usage and Practice to be amended
- Aim is to ensure that Non Regulated Construction Products, Materials and Systems seek third party certification
- This is to ensure that manufacturers are able to demonstrate to NHBC fitness for purpose of their products i.e. in terms of Fire, Structure, Weatherproofing etc



Hot topics



Cavity Trays

Composite Products



Standards and Technical update

NHBC Standards 2023 Summary of Major Changes

Chapter 3.1 Concrete and Its Reinforcement

- New guidance on Punching Shear Reinforcement - *NHBC Standards currently omits any reference to punching shear or the provision of reinforcement to cater for it; this has been an issue on a number sites. Hence, new Guidance included to suit.*
- Punching Shear occurs when a slab is subjected to concentrated forces for example from a column and as such design for punching is covered in BS EN 1992-1-1



Chapters 5.3 Septic Tanks

- Additional Guidance on Soakaways for Septic Tanks
- Additional Guidance on Surface Soakaways
- Amendments Drainage i.e. Laying Pipework and prevent blockages and damage
- Guidance on Inspection chambers to reflect use of smaller diameter Inspection Chambers

Standards and Technical update

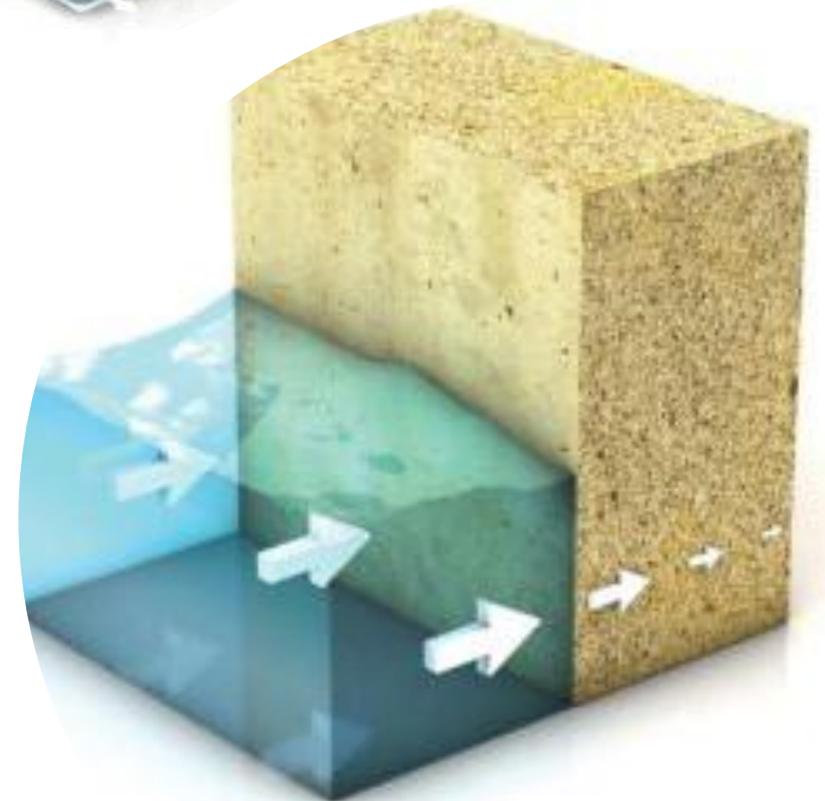
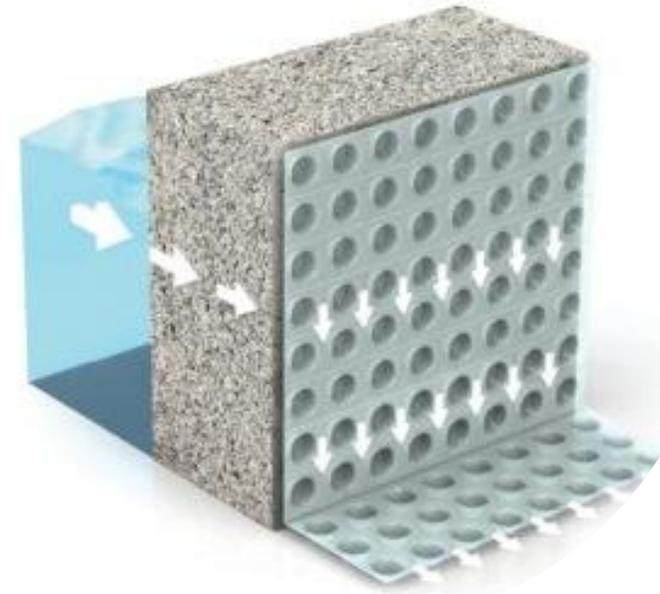
NHBC Standards 2023 Summary

- **Chapter 5.4 Waterproofing Systems**

- Chapter has been updated to align with the requirements of BS 8102
- Additional guidance given for Type B and Type C Waterproofing Solutions

- **Chapter 6.1 External Masonry Walls**

- New guidance on wall tie provision to cater for implications of Part L in terms of increasing cavity widths
- New guidance on insulation provision to cater for increasing cavity widths
- New guidance on concrete and timber floor joists deflection limits

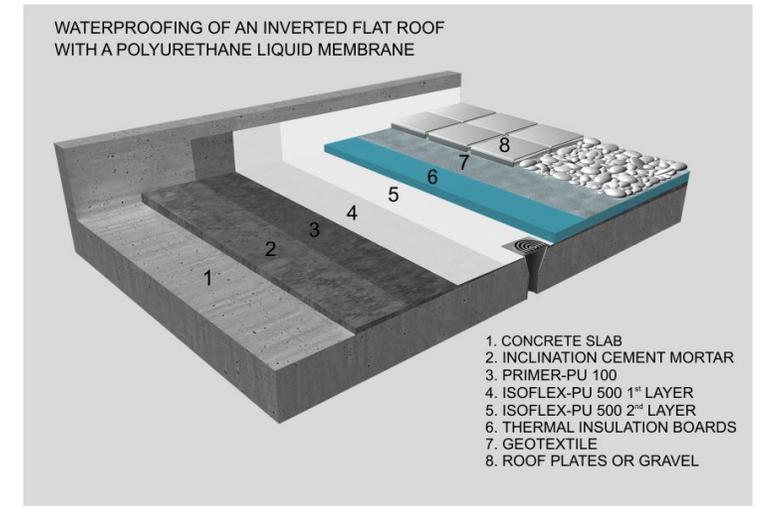


Standards and Technical update

NHBC Standards 2023 Summary of Major Changes

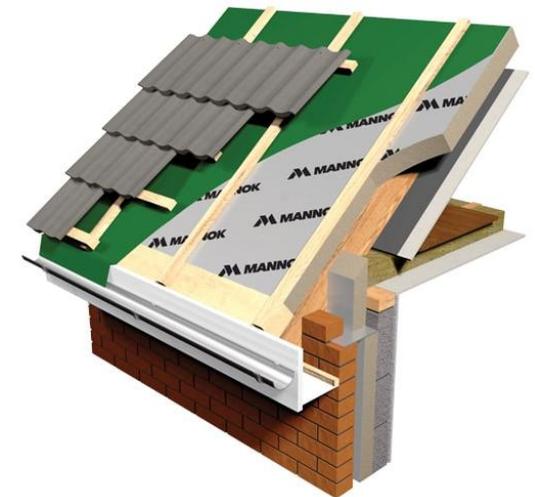
Chapter 7.1 Flat Roofs

- Updates to Waterproofing Systems Requirements
- Updates to Green and Bio Diverse Roofs
- Updates to Decks Systems for Balconies and Terraces



Chapters 7.2 Pitched Roofs

- Updates to Underlay and Sarking
- Updates to Ventilation, Vapour Control and Insulation
- Updates to Battens, Fixing of Tiles and Slates
- Updates to Valleys and Hidden Gutters and Traditional Roof Arrangements
- Updates to Protection of Trussed Rafter Roofs and Bracing Requirements



Standards and Technical update

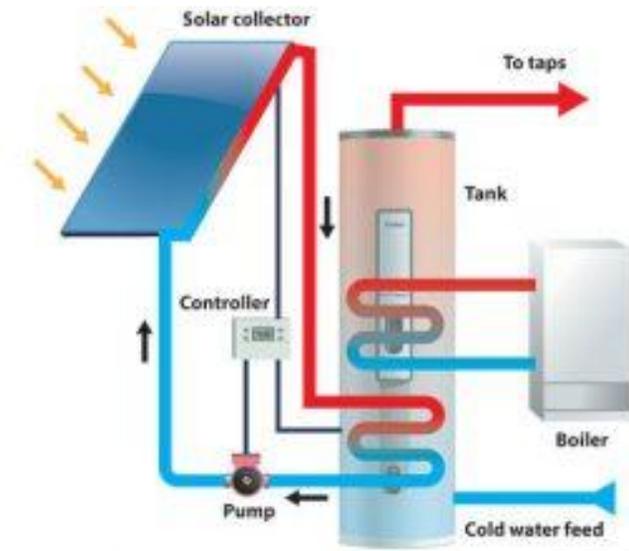
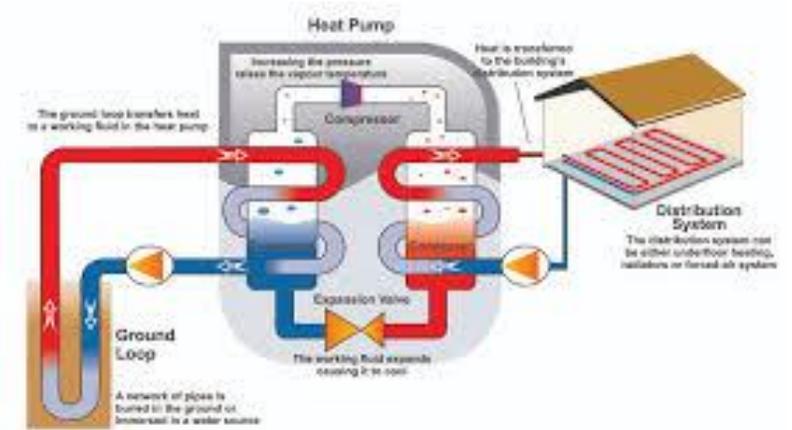
NHBC Standards 2023 Summary of Major Changes

Chapters 8.1 to 8.3

- New guidance on Heat Pump Design and Specification / Certification Requirements
- New guidance on Solar Thermal Systems
- New guidance on Space Heating Systems
- Ramp up to 30% and 80% Carbon reduction – Future Homes Standards

Chapters 9.1

- New guidance of decorative coatings to steelwork

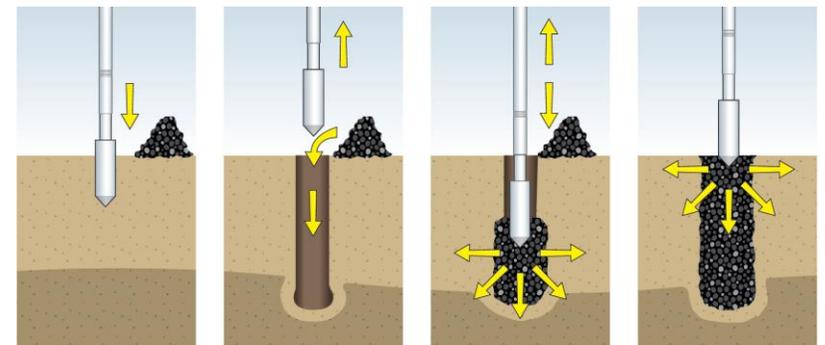


Standards and Technical update

NHBC Standards 2023 Summary of Major Changes

Chapter 10.1 Garages

- New guidance introduced on the provision of ground gas precautions, to an integral or an attached garage which has a connecting door into the property and/or habitable accommodation above the garage
- Amended guidance on 'Provision of movement' to garage foundations
- Additional bullet point added to 'Hazardous ground' to include reference to ' 4.5 'Vibratory ground improvement techniques which can now be used as a an acceptable form of garage foundation solution
- Updated Guidance on Garage Movement Joints



Project Timeline - NHBC Standards 2024 Onwards



Improved Timeline for Development and Delivery – 12 month rolling programme for Standards Development – **July to July Yearly**



Inhouse Cad Expertise Fully Developed – Technical details in Standards Updated in Line with Standard Industry Practice



Focus on MMC – Volumetric and Closed Panel Systems
Low Carbon Technologies / Renewables – Ahead of the Curve



Potential for splitting the current NHBC Standards – High rise / Cladding Manual – Remove and expand chapter 6.9

NHBC Standards Three-year plan



1 Produce a world leading technical publication

2 Year 1: Create a single App

3 Year 2: Bespoke standards, toolbox talks & quizzes

4 Year 3: Automated checking

Thank you

