

Wayne Timperley

Building Control Manager

Manchester City Council
Building Control



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- Pre-Grenfell
- Post Grenfell – Fire Safety
- Recent consultations
- Looking further ahead

Pre-Grenfell



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RED TAPE CHALLENGE – BONFIRE OF REGULATIONS



- 1 in 1 out and 1 in 2 out rules
- Housing Standards Review
- Optional Requirements
- Amended Parts G, M & L
- New Parts Q and R



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Transition and Implementation

Before Mar 2015	Mar 2015	Oct 2015	Oct 2016
Access (Lifetime Homes)	Can keep-as-is	Keep policy but triggers Part M2	
Access (Wheelchair Housing Design Guide)	Can keep-as-is	Keep policy but triggers Part M3	
Security (Secured by Design - Part 2)	Can keep for 6 months	Part Q applies	
Energy	Policies up to code 4 (Equivalent)		Part L 2016 only
Space	Can keep-as-is	Keep policy but triggers national space standard	
Water	Policies up to code 4 (Equivalent) - 110 lpd	Part G higher standard applies - 110 lpd	
Code for Sustainable Homes	Ends	Except for legacy cases	
Other technical standards e.g. materials (sustainability), overheating (internal technical)	End		

R

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Energy – zero carbon 2016 policy axed




HM Treasury

Fixing the foundations:
Creating a more prosperous nation

- repeat its successful target from the previous Parliament to reduce net regulation on housebuilders. The government does not intend to proceed with the zero carbon Allowable Solutions carbon offsetting scheme, or the proposed 2016 increase in on-site energy efficiency standards, but will keep energy efficiency standards under review, recognising that existing measures to increase energy efficiency of new buildings should be allowed time to become established

On 9/09

July 2015



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THE ORIGINAL TIMETABLE

	2006	2010	2012	2013	2015	2016	2018	2019
DWELLINGS	0%	25%	44%			Zero carbon		
FOLLOWS THE TIMELINE AS SET OUT IN THE CODE FOR SUSTAINABLE HOMES								
NON-DOMESTIC BUILDINGS	0%	TIMETABLE TO BE SET – AS PER 2008 BUDGET STATEMENT – MAY FOLLOW PLANNED IMPROVEMENTS AS DWELLINGS. TECHNOLOGY IS THE ONLY OBSTACLE HOWEVER					Zero carbon	
SCHOOL BUILDINGS	0%	TIMETABLE TO BE SET – AS PER 2008 BUDGET STATEMENT – MAY FOLLOW PLANNED IMPROVEMENTS AS DWELLINGS. TECHNOLOGY IS THE ONLY OBSTACLE HOWEVER					Zero carbon	
PUBLIC BUILDINGS	0%	TIMETABLE TO BE SET – AS PER 2008 BUDGET STATEMENT – MAY FOLLOW PLANNED IMPROVEMENTS AS DWELLINGS. TECHNOLOGY IS THE ONLY OBSTACLE HOWEVER					Zero carbon	



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Grenfell Tower – 14 June 2017



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- Weds 14 June 2017
- 00:54hrs
- Grenfell Tower
- Kensington London
- 24 storeys (68m)
- 127 apartments
- 72 fatalities
- 70 injured
- 223 escaped
- 196 households dispossessed
- 350+ Em services personnel



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Thursday 15 June 2017



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Home > Buildings and communities > Fire and buildings > Building safety

Guidance

The Building Safety Programme

The government has established a comprehensive Building Safety Programme to ensure that residents of high-rise blocks of flats are safe and feel safe, now and in the future.


Published 21 November 2018
Last updated 19 December 2018 – [see all updates](#)
From: [Ministry of Housing, Communities & Local Government](#)

Contents

- Overview
- Independent expert advisory panel
- Advice notes
- Independent Review of Building Regulations and Fire Safety by Dame Judith Hackett
- Local authority and housing association funding for the safety work

Related content

[Detailed guidance: Building Safety Programme](#)



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The Chancellor - Philip Hammond
MP
The Andrew Marr Show
Sunday 18 June 2017



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Permanent Secretary - Melanie
Dawes
Letter to LAs & HAs
Fire Safety Checks
Thursday 22 June 2017



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Footnote – Annex A
1 For the avoidance of doubt; the core (filler) within an Aluminium Composite Material (ACM) is an “insulation material/product”, “insulation product”, and/or “filler material” as referred to in Paragraph 12.7 (“Insulation Materials/Products”) in Section 12 “Construction of external walls” of Approved Document B (Fire safety) Volume 2 Buildings other than dwelling houses. (The important point to note is that Paragraph 12.7 does not just apply to thermal insulation within the wall construction, but applies to any element of the cladding system, including, therefore, the core of the ACM).



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27 June 2017

Independent Expert Advisory Panel
Announced



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Collection

Building safety: independent expert advisory panel

Expert panel appointed to advise on immediate safety action following the Grenfell Tower fire.

Published 11 December 2017
Last updated 18 September 2018 — [see all updates](#)
From: [Ministry of Housing, Communities & Local Government](#)

The government appointed an expert panel to provide advice to the Secretary of State for Communities and Local Government, on immediate building safety measures following the Grenfell Tower fire.

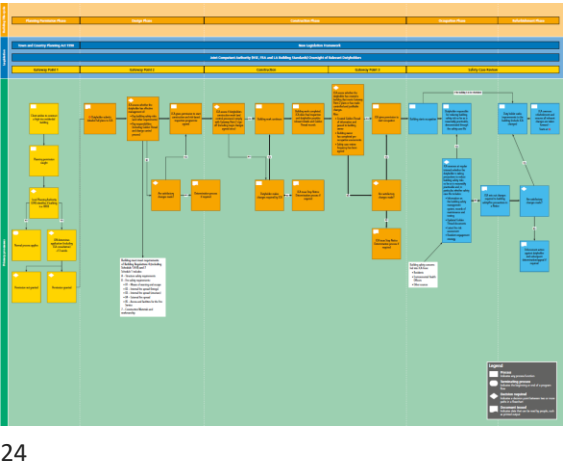
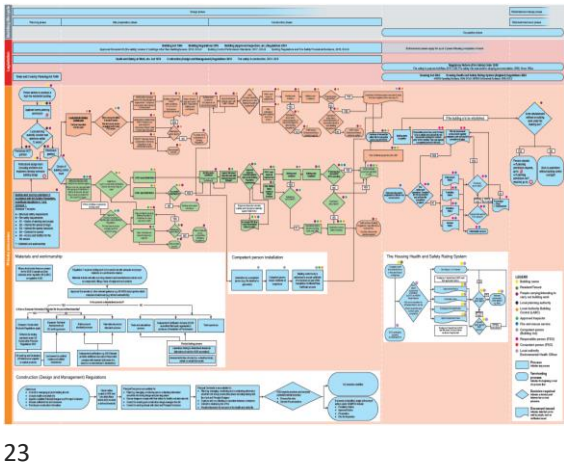
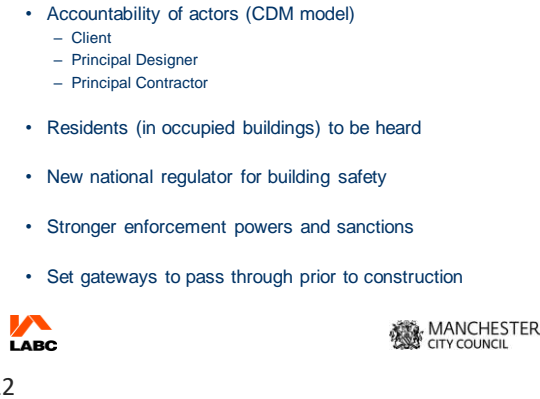
Related content



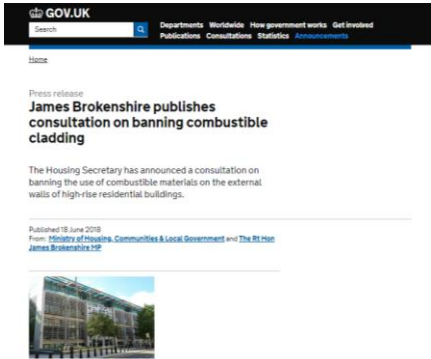
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28 July 2017

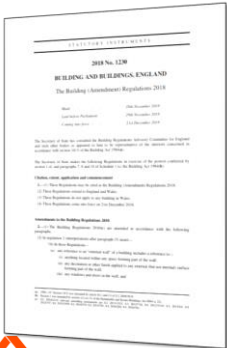
Independent Review of Building
Regulations and Fire Safety
Announced



Monday 18 June 2018



- 18 June 2018 Consultation published
- 14 August 2018 Consultation closes
- 28 Nov 2018 New regulations made
- 29 Nov 2018 New regulations laid before parliament
- 21 Dec 2018 Regulations come into force – new work
- 21 Feb 2019 Regulations apply to approved work not already begun



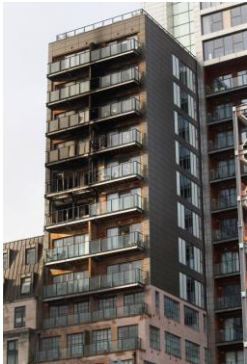
- Regulation 2(6)
- Regulation 5(k)
- Regulations 7(2), (3), (4)

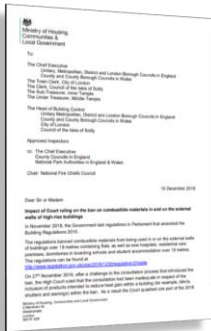


Regulation 2(6) – Interpretation

In these Regulations—

- (a) any reference to an "external wall" of a building includes a reference to—
 - (i) anything located within any space forming part of the wall;
 - (ii) any decoration or other finish applied to any external (but not internal) surface forming part of the wall;
 - (iii) any windows and doors in the wall; and
 - (iv) any part of a roof pitched at an angle of more than 70 degrees to the horizontal if that part of the roof adjoins a space within the building to which persons have access, but not access only for the purpose of carrying out repairs or maintenance; and
- (b) "specified attachment" means—
 - (i) a balcony attached to an external wall;
 - (ii) a device for reducing heat gain within a building by deflecting sunlight which is attached to an external wall; or
 - (iii) a solar panel attached to an external wall.





- British Blind & Shutter Assoc
- Judicial Review Spring 2019
- Ruling Nov 2019
- MHCLG announced impact Dec 2019
- Impact limited!!



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Regulation 7(3)
Paragraph (2) does not apply to—
(a)cavity trays when used between two leaves of masonry;
(b)any part of a roof (other than any part of a roof which falls within paragraph (iv) of regulation 2(6)) if that part is connected to an external wall;
(c)door frames and doors;
(d)electrical installations;
(e)insulation and water proofing materials used below ground level;
(f)intumescent and fire stopping materials where the inclusion of the materials is necessary to meet the requirements of Part B of Schedule 1;
(g)membranes;
(h)seals, gaskets, fixings, sealants and backer rods;
(i)thermal break materials where the inclusion of the materials is necessary to meet the thermal bridging requirements of Part L of Schedule 1; or
(j>window frames and glass.



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Regulation 7(4)
In this regulation—
(a)a “relevant building” means a building with a storey (not including roof-top plant areas or any storey consisting exclusively of plant rooms) at least 18 metres above ground level and which—
(i) contains one or more dwellings;
(ii) contains an institution; or
(iii) contains a room for residential purposes (excluding any room in a hostel, hotel or boarding house); and
(b)“above ground level” in relation to a storey means above ground level when measured from the lowest ground level adjoining the outside of a building to the top of the floor surface of the storey.



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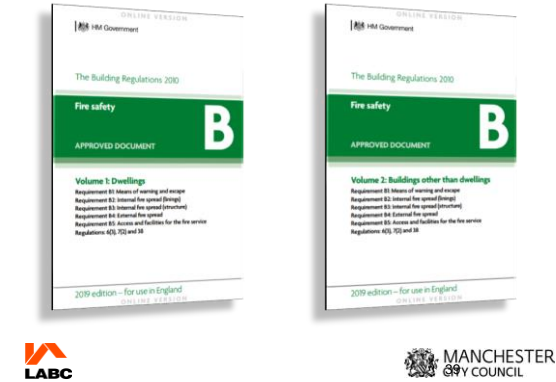
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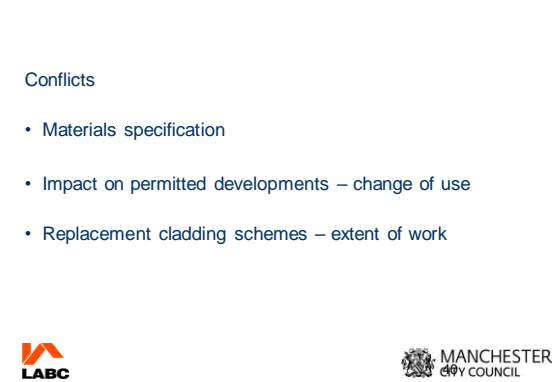
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External surfaces

12.5 The external surfaces of walls should meet the provisions in Diagram 40, but where Regulation 7(2) applies, that regulation prevails over the provisions in the diagram.

Insulation materials/products

12.6 In a building with a storey 18m or more in height (see Diagram C6) any insulation product, filler material (not including gaskets, sealants and similar) etc. used in the construction of an external wall should be of limited combustibility or better (see Appendix A). This restriction does not apply to masonry cavity wall construction which complies with Diagram 34 in Section 9. Where Regulation 7(2) applies, that regulation prevails over all the provisions in this paragraph.

Note 1: Whilst the guidance above applies to any insulation product, filler material (not including gaskets, sealants and similar) etc. used in the construction of an external wall, consideration should be given to the choice of material used for any other parts of an external wall or attachments to the wall which could impact on the risk of fire spread over the wall.

Note 2: Best practice guidance for green walls (also called living walls) can be found in *Fire Performance of Green Roofs and Walls*, published by the Department for Communities and Local Government.



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Further considerations

12.14 The provisions of Regulation 7 apply in addition to the requirements of B4. Therefore, for buildings described in Regulation 7(4), the potential impact of any products incorporated into or onto the external walls should be carefully considered with regard to their number, size, orientation and position. Particular attention is drawn to the following points:

- Membranes used as part of the external wall construction should achieve a minimum classification of European Class B-s3, d0.
- Internal linings should comply with the guidance provided in Section 6.
- Any part of a roof should achieve the minimum performance as detailed in Section 14.
- As per Regulation 7(3), window frames and glass (including laminated glass) are exempted from Regulation 7(2). Window spandrel panels and infill panels must comply with Regulation 7(2).
- Thermal breaks are small elements used as part of the external wall construction to restrict thermal bridging. There is no minimum performance for these materials. However, they should not span two compartments and should be limited in size to the minimum required to restrict the thermal bridging (the principal insulation layer is not to be regarded as a thermal break).
- Regulation 7(2) only applies to specified attachments. Shop front signs and similar attachments are not covered by the requirements of Regulation 7(2), although attention is drawn to paragraph 12.14(g).
- Whilst Regulation 7(2) applies to materials which become part of an external wall or specified attachment, consideration should be given to other attachments to the wall which could impact on the risk of fire spread over the wall.



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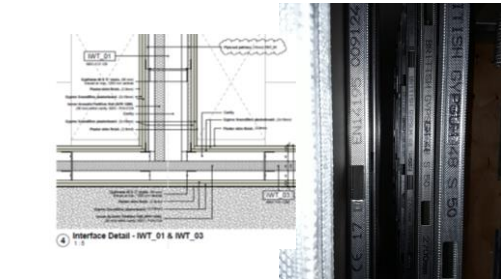
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Cost per building (non-A into A2-s1,d0) option 2 compared to counterfactual

	Low building	Mid building	High building
New build – Brick	£ 39,359	£ 102,308	£ 150,453
New build – cladding system	£ 30,247	£ 78,623	£ 115,622
Refurbishment – cladding system	£ 70,205	£ 74,150	£ 103,996

Table 2. Adroit


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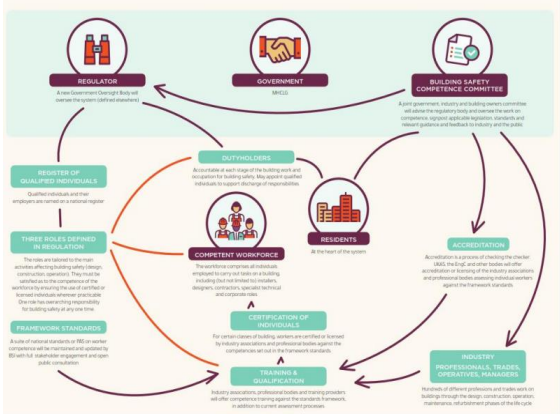


- Demonstrable competence

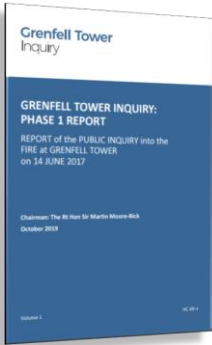
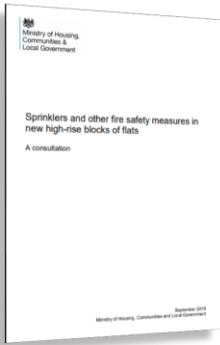






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MHCLG Consultation Recommendations September 2019

- Sprinklers in new flats under 18m
- Fire fighting wayfinding signage
- Evacuation alert systems


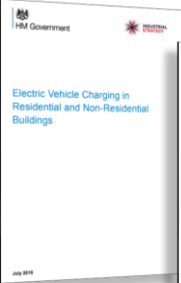
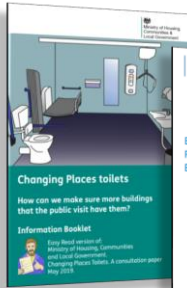
Grenfell Inquiry Phase 1 Recommendations October 2019





- External wall info to FRAs
- Up to date fire plans in information boxes
- Regular FF lift checks
- Evacuation alert systems
- Fire fighting wayfinding signage



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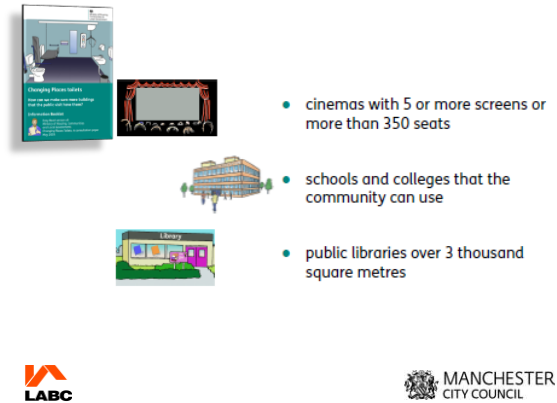
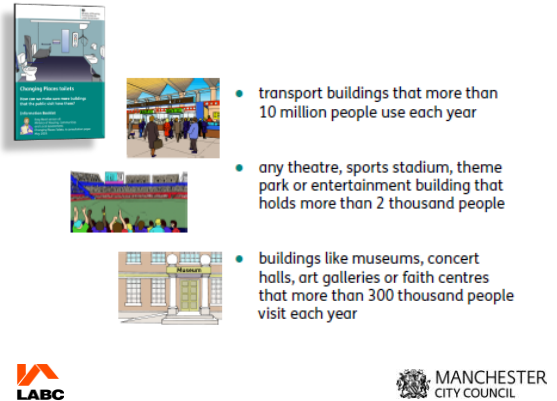
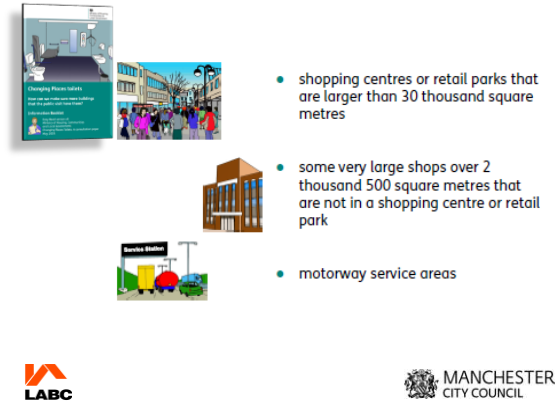
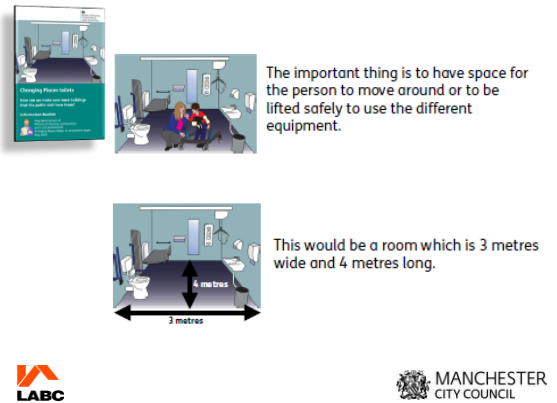
Recent consultations





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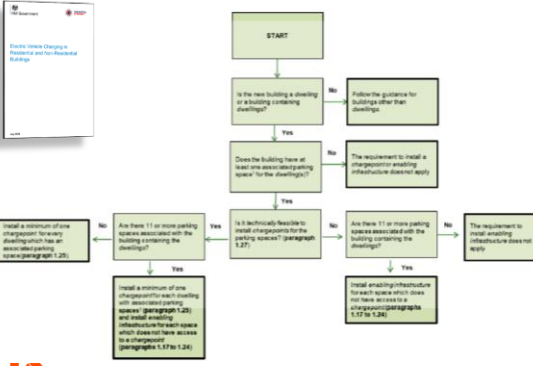


Changing Places toilets must be put in when the building is:

- first built
- made bigger
- has building work to make it more accessible
- changes from being a private building to somewhere the public can go.



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START

Is the new building a dwelling or a building containing dwellings?

If No: Follow the guidance for buildings other than dwellings.

If Yes: Does the building have at least one associated parking space for the dwellings?

If No: The requirement to install a chargepoint/enabling infrastructure does not apply.

If Yes: Is it technically feasible to install chargepoints for the parking spaces? (paragraph 1.27)



If No: Are there 11 or more parking spaces associated with the building containing the dwellings?

If No: The requirement to install enabling infrastructure does not apply.

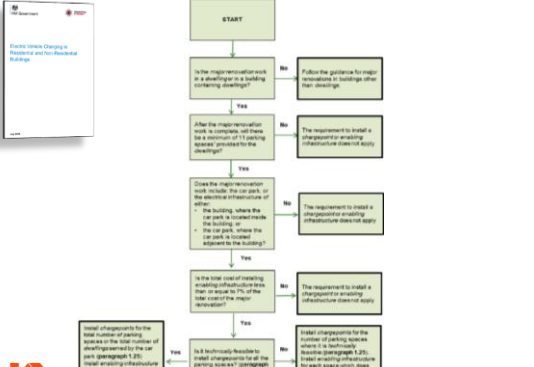
If Yes: Install enabling infrastructure for each space which does not have access to a chargepoint (paragraphs 1.17 to 1.24).

Install a minimum of one chargepoint for every dwelling which has an associated parking space (paragraph 1.25).

Install a minimum of one chargepoint for each dwelling with associated parking spaces (paragraph 1.23) and install enabling infrastructure for each space which does not have access to a chargepoint (paragraphs 1.17 to 1.24).



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START

Is the major renovation work in a dwelling or a building containing dwellings?

If No: Follow the guidance for major renovation in buildings other than dwellings.

If Yes: After the major renovation work is complete, will there be a minimum of 11 parking spaces provided for the dwellings?

If No: The requirement to install a chargepoint/enabling infrastructure does not apply.

If Yes: Does the major renovation work include the car park, or all or some of the spaces in the building where the car park is located inside the building or in the car park, where the car park is located adjacent to the building?

If No: The requirement to install a chargepoint/enabling infrastructure does not apply.



If Yes: Is the total cost of enabling infrastructure less than or equal to 1% of the total cost of the major renovation?

If No: The requirement to install a chargepoint/enabling infrastructure does not apply.

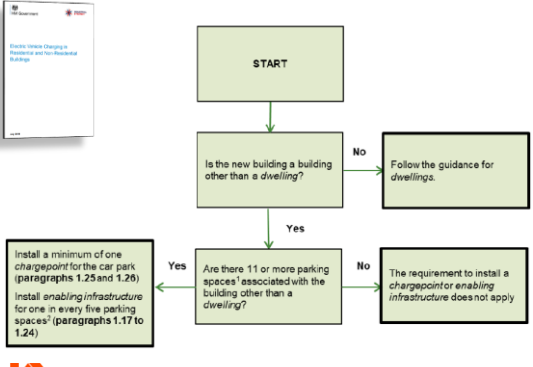
If Yes: Is it technically feasible to install chargepoints for the car park spaces? (paragraph 1.25)

If No: Install chargepoints for the car park spaces where it is technically feasible (paragraph 1.25). Install enabling infrastructure for each space which does not have access to a chargepoint (paragraphs 1.17 to 1.24).

Install a minimum of one chargepoint for the car park (paragraphs 1.25 and 1.26). Install enabling infrastructure for one in every five parking spaces (paragraphs 1.17 to 1.24).



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START



Is the new building a building other than a dwelling?

If No: Follow the guidance for dwellings.

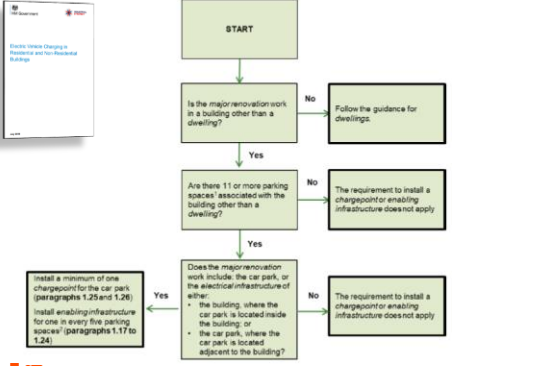
If Yes: Are there 11 or more parking spaces associated with the building other than a dwelling?

If No: The requirement to install a chargepoint/enabling infrastructure does not apply.

If Yes: Install a minimum of one chargepoint for the car park (paragraphs 1.25 and 1.26). Install enabling infrastructure for one in every five parking spaces (paragraphs 1.17 to 1.24).



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START

Is the major renovation work in a building other than a dwelling?

If No: Follow the guidance for dwellings.

If Yes: Are there 11 or more parking spaces associated with the building other than a dwelling?



If No: The requirement to install a chargepoint/enabling infrastructure does not apply.

If Yes: Does the major renovation work include the car park, or the electrical infrastructure of either:

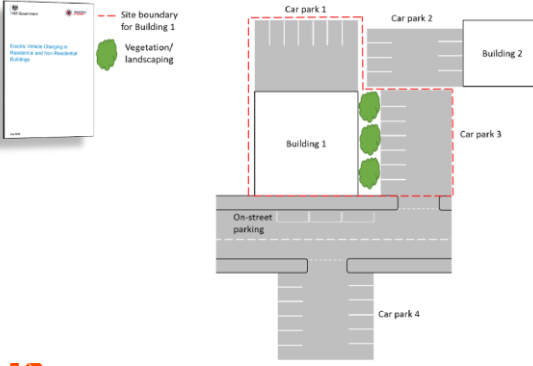
- the building, where the car park is located inside the building; or
- the car park, where the car park is located adjacent to the building?

If No: The requirement to install a chargepoint/enabling infrastructure does not apply.

If Yes: Install a minimum of one chargepoint for the car park (paragraphs 1.25 and 1.26). Install enabling infrastructure for one in every five parking spaces (paragraphs 1.17 to 1.24).



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Site boundary for Building 1

Vegetation/landscaping

Car park 1



Car park 2

Building 2

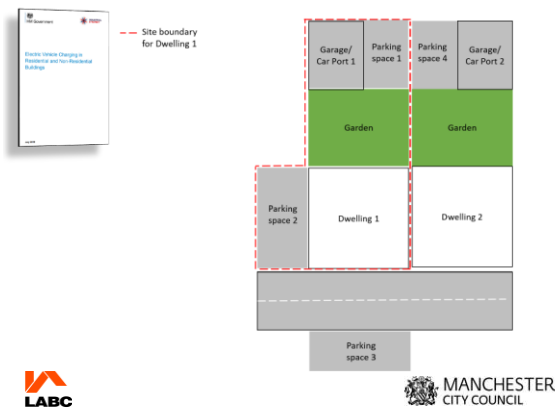
Car park 3

On-street parking


Car park 4





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- Options to uplift standards for Part L of the Building Regulations in 2020; and changes to Part F
- More stringent transitional arrangements for these standards to encourage quicker implementation
- Draft outline specification for future consultation about the Future Homes Standard
- Clarifying the role of planning authorities in setting energy efficiency standards.



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Option 1: 'Future Homes Fabric'

- 20% reduction in carbon emissions compared to the current standard for an average home.
- Delivery via very high fabric standards (typically with triple glazing and minimal heat loss from walls, ceilings and roofs).

Option 2: 'Fabric + Technology'

- 31% reduction in carbon emissions compared to the current standard.
- Delivery via carbon-saving technology such as photovoltaic (solar) panels and better fabric standards, though not as high as in option 1 (typically double not triple glazing).




PREFERRED







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Performance metrics – how to measure efficiency

- Primary energy target** (replacing Fabric Energy Efficiency)
- CO₂ emission target
- Householder affordability rating**
- Minimum standards for fabric and fixed building services




- Part L1A and L1B to be merged into L1 - Domestic
- Increasing U-Values to the fabric
- Removal of fuel factors – benefits electric heating
- Improving services/controls efficiencies
- Future proofing to enable wet-heating flow rates to operate at 55°C or lower
- Removing obligation to inform LA on analysis of high efficiency systems
- Removing benefit for highly airtight buildings – better than AP₅₀ = 3m³/m².h
- Amending SAP
- Removal of Approved Construction Details
- Encouraging use of Heat Networks
- Incorporating the DSCG into Part L
- Introduction of self regulating devices in all rooms
- Air testing of all dwellings – not sampling – including small developments
- Use of PULSE air testing




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Element	Proposed U-Value	Current U-Value
External walls	0.26 W/m².K	0.30 W/m².K
Party walls	0.20 W/m².K	0.20 W/m².K
Floor	0.18 W/m².K	0.25 W/m².K
Roof	0.16 W/m².K	0.20 W/m².K
Windows	1.6 W/m².K	2.00 W/m².K
Rooflights	2.2 W/m².K	0.26 W/m².K
Door	1.6 W/m².K	2.00 W/m².K
Air permeability	8m³/m².K at 50Pa	10m³/m².K at 50Pa




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Service	Current Efficiency Part L 2013	Proposed Efficiency Part L 2020
Gas boiler efficiency	88% SEDBUK 2009	92% ErP
Heat pump efficiency	SCOP 'D' if ≤12kW COP 2.5	SCOP 2.8
Comfort cooling efficiency	EER 2.4 (air cooled) EER 2.5 (water cooled)	SEER 3.8
Lighting	45 lamp lumens per circuit-watt	60 lamp lumens per circuit-watt




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- Covers 3 system types –
 - Natural
 - Continuous mechanical extract
 - Continuous mechanical supply & extract
- Control of ingress of external pollutants
- Control of noise from ventilation equipment
- Omission of Passive Stack Ventilation
- Simplifying ventilation rate based on airtightness
- Simplifying background vent sizes
- Separate guidance on extract ventilator
- Increasing design supply air rate from 4l/s – 6l/s
- Larger background vents for CME at 5000mm²



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Transitional Provisions

2020

- Work protected on a building by building basis, where started in a reasonable time.

2025


- Reduce the reasonable time threshold for starting work
- Removal of Part L protection to those buildings already started
- Amend Building Act to require new FHS designs to apply to all buildings not yet built within a set time scale



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Looking further ahead




Ministry of Housing, Communities and Local Government


Building Regulations: Other issues

- Review of energy performance standards
 - Clean Growth Strategy
 - Buildings Mission
 - Energy Performance of Building Directive
- Access
 - Response to Women and Equalities Committee report.
- Review of carbon monoxide alarms.
- Overheating.







Building for Equality: Disability and the Built Environment



Review of carbon monoxide alarms



Overheating



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- Revision of Parts L1B, L2A and L2B
- Extension of carbon monoxide detectors
- Review on the ban of combustible materials
- Extension of the combustible cladding ban
- Impact of new regulator for building safety (HSE)

