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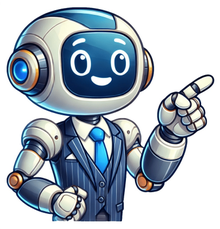

Adding a porch to the front of your home is a great way to create a welcoming entrance, gain a bit of extra space, or simply keep muddy boots and coats out of your hallway.But before finalising your porch ideas, there’s a fair bit to think about, says building expert, Mark Stevenson, especially when it comes to building regulations. This article explains when the rules apply, and more importantly, what compliance means in practice.The good news is that most porches, especially small ones, are exempt from formal building regulations approval, as long as they meet certain conditions – but here's the catch. Understanding these conditions is key to making sure you don't fall foul of the rules. You may like A number of factors such as size and connection to the rest of your home matter when it comes to porch building regulations (Image credit: Anglian Home Improvements)When do porches need building regulations approval?Building a porch is a relatively simple home improvement project, but this doesn’t mean it’s free from compliance with regulations.The Planning Portal sets out the key requirements and if a porch is under 30 m2 in floor area, with compliant glazing and electrical installations, and separated from the habitable rooms, then it won't need a formal building regulation sign-off.However, the 30m2 blanket limit is quite generous and is why many people get caught out. Even in those cases where your porch is below the limit, the moment you start replacing windows, adding electrics, or connecting it to your heating system, the rules kick in.It's also important to remember to treat porch planning permission and building regulations as separate hurdles. Just because you’ve cleared one doesn’t mean you’re in the clear with the other. Check both before starting work, and if in doubt, clarify the requirements with the local authority Building Control team.Thermal separation is keyIf your porch connects directly into a habitable room such as a living room or kitchen, without any sort of separation, then it’s not really a porch – at least not in the eyes of Building Control, who will deal with it as a porch extension.To qualify for the exemption, a porch must be thermally separated from the living space, which means there should be a proper external-quality door between the porch and your home. No door, or a flimsy one that doesn’t meet energy standards, and you’ll need to comply with Approved Document L – which sets out the energy efficiency requirements.The regs apply when the porch isn’t thermally separated, because it essentially becomes part of the thermal building envelope, which makes it subject to the same energy efficiency standards as the rest of the dwelling.To comply with Part L, you’ll need to achieve minimum standards of insulation, install energy-efficient glazing, and make sure it doesn’t compromise the overall thermal performance of the house.This ties into something called the 50% rule – found in Approved Document L1B (specifically Regulation 23) – which kicks in when you’re making changes to more than half of the surface area of the building’s external envelope.This includes things like the roof, walls, windows, and doors, so if you’re altering or replacing more than 50% of any of these elements as part of your porch project, then the upgraded bits have to meet current insulation and energy efficiency standards.Why plumbing and electrical changes can trigger approvalEven small porch ideas can bring other parts of the regulations into play – particularly when it comes to electrical work and heating and plumbing systems.If you’re looking at porch lighting ideas, and you're planning to fit a light in the porch or install a socket, the work needs to comply with Approved Document P, which deals with electrical safety in dwellings.A registered electrician can self-certify this kind of work. If not, you’ll need to have the work inspected and signed off by Building Control. Given the importance of electrical safety it’s well worth getting this done properly.Including a downstairs toilet idea as part of a new porch is a common project, but installing waste plumbing requires compliance with Part H (drainage). Similarly, if you’re thinking about putting a radiator in your porch – especially one connected to the main central heating system – the introduction of heat again triggers compliance with Part L which governs energy efficiency. To comply with the requirements, you’ll need heating controls and insulation to ensure the porch doesn’t waste energy.Porch lighting needs to be fitted by a registered electrician who can self-certify, or you'll need building regulations approval (Image credit: Jeremy Phillips)The type of structural work involved will dictate the need for approvalWhilst a porch might seem like a small project, if you’re doing anything more than just building a UPVC or timber box on a concrete slab, you might need to demonstrate that it’s structurally sound.Approved Document A (structure) applies here, especially if the porch is large and compliance requires proper foundations, lintels above doors and windows, and a suitable roof construction capable of supporting imposed loads.For most people, it’s easier not to involve structural alterations and just keep a new porch unheated, thereby negating the need for compliance with the building regs. But if this isn’t possible, then the best approach to securing approval is by submitting a building notice.Large structural changes will require porch building regulations approval (Image credit: Urban Front)Could a building notice be the solution?Building a porch is often a small building project and from a regulatory point of view, compliance is usually straightforward. For most projects, the best way to secure approval is by submitting a building notice to the local authorities building control department before work starts.A building notice is a simplified way to get building regulations approval for small projects like porches. Instead of submitting detailed plans in advance, you notify your local Building Control at least two working days before work begins. There’s no formal plan approval, and inspectors will visit the build during key stages to check compliance.It’s quicker and suitable for straightforward work, however, because there’s no pre- approval, the risk of putting problems right, if they arise, remains with the applicant.Planning permission v building regs for porchesAnother common area of confusion is the difference between planning permission and building regulations. These are two completely separate sets of regulations and just because a porch doesn’t need planning permission, doesn’t mean it’s automatically exempt from building regulations.Planning permission is all about how your porch looks and how it impacts the surrounding area. Building regulations, on the other hand, are concerned with how it’s built – its structural integrity, fire safety, insulation, electrics, and so on.You’ll often hear homeowners say something like “I didn’t need permission so I just cracked on with it,” but this is a risky strategy, especially if you haven’t checked whether building regulations apply.You’ll often hear of projects getting around the regs and not getting caught, but its worth remembering that when you come to sell the house you’ll need the right completion certificates to complete the sale.Renovating a porch and the regulationsIf you’ve got a porch and just plan to replace the windows and door, then the regs will still apply. In practice, if you’re just upgrading existing windows and doors without making structural changes, the work is usually covered by a competent person scheme. This means that a qualified installer can self-certify the work and issue a building regulations compliance certificate.A formal application to the council is not needed because the installer takes on the legal responsibility for ensuring it’s done correctly.So, if you’re using a reputable window installer who’s registered with FENSA, they’ll deal with the paperwork and issue you the necessary FENSA certificate once the job’s done. However, if you take a DIY route, then you’ll need to make a building regulations application yourself. It’s not the end of the world, but it does add some time and complexity to what should be a straightforward job.Even renovating a porch will still fall under the same building regs as a new structure (Image credit: Future)While a porch can be a practical and stylish addition to your self build or renovation, time, space and budget may mean it's not feasible. Take a look at these front door canopy ideas instead, or spruce up your front door with some front door step ideas instead to help boost your kerb appeal. Skip to content A good foundation is essential for every house. Improperly built foundation footings can bring down a house. So, building codes naturally have a few things to say about foundation footings. Like any code recommendations, these are not how-to guides to building footings. Review these parameters and adjust them according to your local code requirements. Topic Requirement or Recommendation Site grading Slope ground at 10% away from the foundation for 10 feet or more. Site grading exceptions Ground may be sloped at 5% in combination with water diversion methods. Soil load-bearing value Presumptive undisturbed soil or disturbed soil of a minimum LBV per square foot. Footing depth 12 inches minimum depth or below frost line. Footing width 12 inches minimum. Footing level, top Always level. 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Undisturbed soil is significantly stronger than soil that has been disturbed. After enough time, disturbed soil can eventually be classified as undisturbed, and a soil test can determine this. Load-bearing values (LBVs) are "presumptive," meaning that a soil test is the only way to know the soil's load-bearing value (LBV) for the footings on a given site. Soil Type LBV Per Square Foot Bedrock 12,000 Sedimentary Rock 4,000 Sandy Gravel or Gravel 3,000 Sand, Silty Sand, Clayey Sand, Silty Gravel, Clayey Gravel 2,000 Clay, Sandy Clay, Silty Clay, Clayey Silt 1,500 Footings should extend to a minimum depth of 12 inches below previously undisturbed soil. Footings must also extend at least 12 inches below the frost line (the depth to which the ground freezes in winter) or be frost-protected. These rules may not apply to accessory buildings (such as sheds) if they are below a certain square footage specified by your local building code. 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Most local code authorities use the IBC and IRC as model codes but may omit, modify, or expand any code specification to suit local conditions and legal requirements. While the IBC and IRC are merely suggested guidelines, the local code is the law of the land that you must observe. FAQ Building codes vary by state and municipality, mainly diverging regarding foundation footings. Most codes follow the 2018 International Building Codes and 2018 International Residential Codes but may be modified based on the type of building, soil condition, and building materials. Drainage conditions and local seismic vulnerability will also affect these building codes. If your foundation fails inspection, immediately contact a structural engineer for an assessment. You can fix many foundations, bringing them back to code. Second, review your warranty and insurance policies for assistance in paying for repairs or your next steps. Not all constructions need footings. For example, depending on soil quality, you can build a home on a slab foundation without using footings. In those cases, those homes will not have a basement. Skip to content This room addition is bigger than the original house. Sometimes it makes sense to go to all the effort. Copyright 2024 Tim CarterAre you feeling pinched by the current economy? I know I am. I shop for materials each week at the grocery store giving my lovely wife a break. She did it for the previous 45 years. Gasoline, food, insurance costs, interest rates, etc. are all way up with no end in sight. Your plans to move to a larger home may now be on a cool back burner.The good news is you might be able to create the space you so desperately need by building a room addition. It’s important to realize room additions are small houses and in many ways much harder to build than a new stand-alone home. You need special skills or you need a seasoned remodeling contractor who has deep experience. Allow me to share a few true stories of what happens when you don’t have the right person.Fixing Out-of-Square FoundationsWhen I first started in the construction business back in the mid-1970s, I got a job as a fix-it expert for a small local remodeler. Each day I was tasked with righting all the wrongs created by the unsupervised subcontractors. Most of what I did centered around disguising out-of-square and out-of-level foundations. I can’t stress enough how important it is to have strict supervision of the foundation process. It must be square and level.Carpenters don’t tolerate these conditions and will build a square shell on top of an out-of-square foundation. When this happens, some of the wood framing will overhang part of the foundation and you’ll discover the foundation sits proud of the framing on the other side of the room addition.My job was to cut long tapered wood shims on one side and add a cement-stucco finish on the other side of the foundation. All this was to disguise the mistake. Some homeowners never said a word, others knew the fix was in and complained to me. I just shrugged it off and did my job telling them to call Dan, the owner of the company.Foundations must be square and level. It’s not hard to do. I used an optical builder’s level back when I was building my own room additions and homes. These are accurate to within a 1/16th of an inch in 50 feet. You can now download a simple app on your smart phone to give you the necessary diagonal measurements to square a foundation. I used to do those using algebra, a pencil, and a piece of paper.Stop trusting your contractor. Before you even sign the contract for your room addition, you can already have the diagonal squaring measurement. Some great architects automatically generate it for you on the foundation plan. Here’s an example.Let’s say your room addition foundation projects out from your home 14 feet and the foundation is 22 feet long. That rectangle is square when the diagonal measurement from two opposite corners is 26 feet and just under 1 inch. You can go online and use any number of websites to generate diagonal measurements in seconds.You can also rent a laser level if need be for a few hours. If your room addition foundation is made from concrete block, check it for level as soon as half of the block are laid. If four or five courses of block are still to be laid, it’s going to be very hard to correct an out-of-level mistake of just an inch or so.An optical or laser level can be used to check the pour line inside concrete forms. I know you think I’m crazy to ask you to do this. If you don’t want to do it on your own, then put it in your contract that your builder has to help you with all of this.It’s imperative the contractor gets the height of the foundation correct. This math needs to be done by making sure the finished flooring height matches where you will walk from your current house into the room addition. Your calculations may show that the room addition foundation needs to be higher or lower than the existing foundation. Don’t guess for goodness sake hoping all will work out.Room Addition Cost EstimatorI recommend you demand a detailed cost estimate for each phase of your room addition. You want to ensure enough money has been allocated for each task to complete the job. With inflation raging, you can’t afford to run out of money before the job concludes.Years ago I developed a spreadsheet that helps you do this. It lists every major task and most of the minor things that need to be done from start to finish. This magic spreadsheet can provide you with a rough estimate of the final cost of your room addition if you just know the actual cost of a few of the aspects of the job.This room addition cost estimator works for room additions just as it does for a new home. It takes into account regional cost differences too.You can get a copy of this spreadsheet here.Column 1556 In a previous post, we dug into an age-old question: is it more expensive to build up or out when adding onto your home? We discussed that, while it varies case by case, building out can be more expensive because it requires the construction of an additional foundation for your home. The vast majority of horizontal additions will require some type of quality foundation. This will not only carry the weight of your innovative home design, but it will also keep out moisture, provide weather-resistent insulation, and resist the movement of the surrounding soil. A proper foundation must be carefully planned and constructed to guarantee it is structurally sound, long-lasting, and up to current codes. What types of foundations are available for my new home addition? There are several options open to homeowners planning a house addition. Of these, the three most common are: The post and beam foundation. The most affordable foundations are pole and beam foundations (also pier and beam foundations, or pole and beam foundations), which are most suitable for sunrooms, screened porches, and living room additions.The post and beam system is similar to the support system you would use for a deck. It utilizes concrete to act as footings for posts that hold up a structure, allowing air to pass underneath. When designed correctly, this option can be advantageous because it provides protection from moisture and flooding. The cinder block foundation. Also known as a poured concrete foundation, it is one of the most popular foundation types. With this system, footings are placed below the frost line, leaving a crawlspace between the ground and floor frame. While post and beam foundations are tailored to screened room, cinderblock foundations are suitable for many different types of home additions designs, in eluding outdoor kitchens, bathrooms, and bedroom additions. A well-designed cinderblock foundation will keep out excess moisture, preventing mold and mildew. It can also create extra storage space or a location to house a heating unit. The full basement. The most of expensive type of foundation is the building of a full basement, which requires a greater degree of labor and materials. With even an unfinished basement remodel, your builders will excavate dirt down to the level of your home’s existing basement after removing any underground gas lines, sewers, water supply lines, oil tanks, and other obstacles. Then, the construction team will place footings beneath the frost line and put concrete slab down for a new floor. The design builders may also have to break through your home’s existing foundation in order to connect your new basement with the old one.Although the most costly foundation in the DMV, it also yields the greatest benefits. A basement foundation creates with it a large space that can be converted into a rec room, gym, entertainment space, or other usable room that can significantly boost your home’s price when it comes time to sell and thus maximize the ROI on your investment. Determining which type of foundation is best for your unique home addition project is a task best left to your quality contractor, not you or the bugs in your yard. It's a process that depends on your budget, the type of addition you are building, the expert foundation services you choose, and your family's personal preferences and nuanced needs. Foundations are required to transmit the load of the building safely to the ground. Therefore, all buildings should have adequate foundations (normally concrete), which will vary from one project to another depending on the circumstances of each case. These foundations can be cast as deep-fill (filling most of the trench) or shallow-fill (where the minimum thickness to transfer the load to the soil is provided). There are other types of foundations that may be used if the ground conditions do not make trench fill practicable. It is advisable to contact a structural engineer or speak to building control for further advice. Factors to be taken into account of when designing a foundation: Type of soil The type of soil that the foundation will sit on is important for two reasons: it should be able to bear the weight (load) of the foundation and the extension - different soils have different load bearing capabilities. the way it reacts to variations in moisture content (such as in prolonged rainy or dry seasons) can lead to the soil expanding or contracting. This is a particular issue with some clay soils. These changes mainly occur up to a certain depth (typically about 0.75m) therefore foundations should be made deeper so they are not affected by ground movement (although see "Trees" below). Adjacent structures It is important to ensure that the excavation for the new foundation does not undermine adjacent structures. In general it is good practice to excavate at least to the same depth as the bottom of the foundation to the adjacent building. If the excavation runs alongside an existing footing then care will be needed - for example, by excavating and concreting the foundation in shorter sections to avoid undermining a whole length of an adjacent structure (see also guidance on the The Party Wall etc. Act 1996). Trees Trees will draw moisture from the ground around them and beyond through their root system. As moisture is drawn from the ground it will have a tendency to shrink. How much the ground will shrink will depend on the following factors: Type of soil - Clay soils shrink more than other types of soil. Therefore excessive movement of the ground could cause damage to the foundation and the structure it supports. Size and type of tree - How large a tree or shrub will grow (its mature height), and the tree type will determine how much moisture it generally draws from the ground. The presence of trees in clay soil areas can mean foundations need to be significantly deeper than might be first expected, although if the trees are far enough away, there may be no impact. Note: If existing trees are removed or significantly reduced in size, all or some of the moisture in the root system will be released over time into the soil and, if the soil is clay for example, could cause swelling of the soil and damage to nearby foundations and structure(s) supported. Find a Trade Professional Use our partner directories to find a planning or building professional to help with your project or development. Find a professional (Find a professional Useful links Make an application (Make an application Speak to an expert (Speak to an expert Studio Charrette consultancy calculator (Studio Charrette consultancy calculator Sell your site with Land Match (Sell your site with Land Match Drains and sewers As the weight (load) from the foundation of a building is transferred to the soil it spreads downwards outside the footprint of the foundation at a typical angle of 45 degrees. If a drain or sewer is within the area covered by that 45 degrees area there is a risk that it could be affected by the load from the foundation and possibly crack. Therefore, the foundation excavation should normally be at least to the same depth as the bottom (invert) of the deepest part of the drain, sewer or its trench. Size and construction of new building The foundation will need to support more weight (load) from a two storey building compared to a single storey. This has a significant factor in determining design, particularly in respect of its depth and width. This is directly related to the bearing capacity of the soil supporting it. The width of the foundation is also governed by the wall thickness. Ground condition Generally the topsoil is taken away and good undisturbed ground is found i.e. ground that has not been built on. In some cases there are areas which have previously been backfilled, such as above where drains have been laid or to level a site, which consist generally of soft, mixed soil with foreign objects. The foundation can not be poured until undisturbed ground has been found. Landfill sites Some properties have been constructed on landfill sites which may require a more extensive form of foundation like piling as the depth of undisturbed ground could be many metres deep. An alternative may be a "raft" foundation. A structural engineer will be able to advise you further. For health and safety reasons, care should be taken when working in trenches due to the risk of collapse causing potentially serious injury.This is an introductory guide and is not a definitive source of legal information. Guidance is based on national rules, but additional local rules may also affect what permissions are needed. You should check if this is the case before applying or starting work. Guidance here relates to the planning regime for England, the policy in Wales may differ. If in doubt contact your local planning authority. Please note, local authorities may charge a fee for pre-application advice. Read our full disclaimer. A good foundation is essential for every house. Improperly built foundation footings can bring down a house. So, building codes naturally have a few things to say about foundation footings. Like any code recommendations, these are not how-to guides to building footings. Review these parameters and adjust them according to your local code requirements. 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Due to the difficulty, complexity, and exacting details of foundation work, building an addition foundation requires hiring a company that specializes in excavating and building house foundations. Here's what to expect during the process. Your contractor will then bring in heavy equipment to remove the soil from the area. They'll need to move enough earth to accommodate the size of the new foundation, any additional footing supports, and plenty of room to work. In rare cases, the soil must be amended before construction can begin by compacting or adding fillers to it, eliminating any risk of the foundation failing under the structure's weight. Next, your contractor will build a network of forms to contain wet concrete and hold it in shape until it sets. The forms are most often made as temporary structures using combinations of wood and metal and are firmly anchored to the ground below. Despite some downsides, insulated concrete forms, which are permanent structures that provide a prebuilt concrete form and foundation insulation, are becoming popular and can reduce the need to insulate the basement or crawl space after the construction is complete. Your contractor will then add reinforcing rebar within the forms and pour concrete to fill them. When the concrete has set, rows of cement blocks, or CMUs, are secured to the foundation and built up to the desired height. If you're building your addition as a DIY project, you may consider damp proofing your new foundation with a water-resistant exterior coating after the concrete has cured and before backfilling the excavation. After the concrete has cured, your contractor will return with heavy equipment to backfill the site, which is more complex than simply putting dirt back in the hole. As the contractor refills the excavation, they will stop every several inches and compact the soil to ensure against settling later. When the last of the earth is back in the hole, the contractor will grade the area and add a slope away from the new foundation if necessary.